



NONRESIDENTIAL SITE PLAN APPLICATION

City of Rochester, New Hampshire

[office use only. Check # _____ Amount \$ _____ Date paid _____]

Date: November 6, 2018 Is a conditional use needed? Yes: X No: _____ Unclear: _____

(If so, we encourage you to submit an application as soon as possible.)

Property information

Tax map #: 267; Lot #(s): 2&3; Zoning district: Recycling Industrial

Property address/location: 90 Rochester Neck Road and Isinglass Drive

Name of project (if applicable): LFG Supplemental Treatment Systems

Size of site: North Area: 2.83 acres, South Area : 0.03 acres overlay zoning district(s)? _____

Property owner

Name (include name of individual): Waste Management of New Hampshire, Inc.

Mailing address: 30 Rochester Neck Road, Rochester, NH

Telephone #: (603) 330-2164 Email: bmagnusson@wm.com

Applicant/developer (if different from property owner)

Name (include name of individual): _____

Mailing address: _____

Telephone #: _____ Email: _____

Engineer/designer

Name (include name of individual): Sanborn, Head & Associates, Inc. (Timothy Reed, P.E., CPESC)

Mailing address: Sanborn, Head & Associates, Inc., 20 Foundry Street, Concord, NH 03301

Telephone #: (603) 415-6107 Fax #: (603) 415-1919

Email address: treed@sanbornhead.com Professional license #: 11048

Proposed activity (check all that apply)

New building(s): _____ Site development (other structures, parking, utilities, etc.): X

Addition(s) onto existing building(s): _____ Demolition: X Change of use: _____

Nonresidential Site Plan Application Tax Map: 267

Lot: 2&3

Zone: RI

Describe proposed activity/use: North Area: Addition of six treatment vessels and concrete pad adjacent to the North Flare Yard; South Area: Relocation of two treatment vessels from the Phase 14 area to an existing concrete pad adjacent to the Leachate Treatment Plant. See narrative in Application for more information.

Describe existing conditions/use (vacant land?): North: Existing Pond 7 area; South: Existing concrete pad supporting leachate treatment equipment and buildings.

Utility information

City water? yes___ noX; How far is City water from the site? N/A

City sewer? yes___ noX; How far is City sewer from the site? N/A

If City water, what are the estimated total daily needs? 0 gallons per day

If City water, is it proposed for anything other than domestic purposes? yes___ No X

If City sewer, do you plan to discharge anything other than domestic waste? yes___ no X

Where will stormwater be discharged? North Area: Stormwater flows to Pond 7 and ultimately to the Cocheco River; South Area: No changes will be made to stormwater flow

Building information

Type of building(s): No buildings are proposed as part of this project.

Building height: N/A Finished floor elevation: N/A

Other information# parking spaces: existing: 0 total proposed: 0 new; Are there pertinent covenants? NoNumber of cubic yards of earth being removed from the site North Area: Approximately 9,300;
South Area: No earth is being removed from this area.Number of existing employees: N/A; number of proposed employees total: N/ACheck any that are proposed: variance X; special exception ; conditional use Wetlands: Is any fill proposed? No; area to be filled: N/A; buffer impact? No

Proposed <u>post-development</u> disposition of site (should total 100%)		
	Square footage	% overall site
Building footprint(s) – give for each building	0	0
Parking and vehicle circulation	14,490	12
Planted/landscaped areas (excluding drainage)	0	0
Natural/undisturbed areas (excluding wetlands)	0	0
Wetlands	0	0
Other – drainage structures, outside storage, etc.	108,990	88

Table Notes:

1. *Parking and vehicle circulation within the project area represents the total proposed gravel surface at the Main Pad area, excluding the snow storage area.*
2. *The site area includes the area within the project's limit of disturbance. Therefore, the Natural/undisturbed area is 0.*
3. *Other area within the project area represents the total Pond 7 areas that are proposed to be modified, the Pond 7 emergency overflow swale and infrastructure, and the snow storage area provided at the north end of the proposed gravel area.*
4. *No buildings, parking areas, landscaped areas, wetland disturbances, or other changes to the existing ground cover are proposed for the South Area. Therefore, the square footage of the South Area is not accounted for in the table above*

(Continued Nonresidential Site Plan Application Tax Map: 267

Lot: 2&3

Zone: RI

Comments

Please feel free to add any comments, additional information, or requests for waivers here:

A request for a waiver is included with the application.

Submission of application

This application must be signed by the property owner, applicant/developer (if different from property owner), and/or the agent.

I (we) hereby submit this Site Plan application to the City of Rochester Planning Board pursuant to the City of Rochester Site Plan Regulations and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As applicant/developer (if different from property owner)/as agent, I attest that I am duly authorized to act in this capacity.

Signature of property owner: _____

Robert S. Magnusson
ROBERT S. MAGNUSSON

Date: _____

11/6/18

Signature of applicant/developer: _____

Date: _____

Signature of agent: _____

Date: _____

Authorization to enter subject property

I hereby authorize members of the Rochester Planning Board, Zoning Board of Adjustment, Conservation Commission, Planning Department, and other pertinent City departments, boards and agencies to enter my property for the purpose of evaluating this application including performing any appropriate inspections during the application phase, review phase, post-approval phase, construction phase, and occupancy phase. This authorization applies specifically to those particular individuals legitimately involved in evaluating, reviewing, or inspecting this specific application/project. It is understood that these individuals must use all reasonable care, courtesy, and diligence when entering the property.

Signature of property owner: _____

Date: _____



November 6, 2018

Mr. James B. Campbell, Director
Planning and Development Department
City of Rochester
31 Wakefield Street
Rochester, New Hampshire 03867

TURNKEY RECYCLING & ENVIRONMENTAL ENTERPRISE

30 Rochester Neck Road
P.O. Box 7065
Rochester, NH 03839
(603) 330-2197
(603) 330-2130 Fax

Re: Letter of Intent – Application for Site Plan Approval
LFG Supplemental Treatment Systems Project
Turnkey Recycling and Environmental Enterprise
Rochester, New Hampshire

Dear Mr. Campbell:

Waste Management of New Hampshire, Inc. (WMNH) is proposing to construct two landfill gas (LFG) supplemental treatment systems (North Area and South Area), hereafter referred to as the LFG Supplemental Treatment Systems project, at the TLR-III Refuse Disposal Facility (TLR-III) in Rochester, New Hampshire. The treatment systems will consist of media-containing vessels that will treat the LFG prior to entering the various energy recovery equipment at the WMNH facility. The North Area portion of the project will be located near the existing North Flare Yard and will consist of up to six treatment vessels proposed on a portion of Pond 7. To accommodate this project and maintain the required storage volume of Pond 7, the western portion of the pond is proposed to be modified to account for the volume displaced by filling the western portion of the pond for the project. The South Area involves relocating two treatment vessels from the Phase 14 area to an existing concrete pad adjacent to the Leachate Treatment Plant.

WMNH intends to submit an Alteration of Terrain application for the project components to the NHDES in November 2018. WMNH will provide the City of Rochester a copy the application.

The following information is provided for this Site Plan Review application.

Applicant's Name: Waste Management of New Hampshire, Inc. (property owner)

Property Location: 90 Rochester Neck Road, Tax Map 267 Lots 2 & 3

Size and Use: This project will involve constructing LFG supplement treatment vessels in two areas of the facility – North Area and South Area. The North Area includes constructing up to six treatment vessels situated on a concrete pad within a portion of Pond 7. To accommodate the concrete pad and maintain the required storage

From everyday collection to environmental protection, Think Green® Think Waste Management.

volume of Pond 7, the western portion of the pond was modified to account for the volume occupied by the concrete pad. The South Area involves installing two treatment vessels on an existing concrete pad adjacent to the Leachate Treatment Plant.

Proposed Use: WMNH is proposing to supplement its existing LFG treatment facilities that serve its energy recovery facilities.

Previous Use: The North Area portion of the project was occupied by a portion of Pond 7, which will be modified to accommodate the storage volume associated with constructing the concrete pad. The South Area portion of the project is part of the existing Leachate Treatment Plant.

Existing Conditions: The proposed development will occur on portion of the WMNH facility that hosts several other related facilities. WMNH owns the properties encumbered by and abutting the parcels. The project site will be screened from view by existing vegetation and other structures. The North Area location may be accessed by the North Access Road; the South Area may be accessed via Rochester Neck Road and Isinglass Drive. WMNH anticipates no change in traffic as a result of this project. WMNH is not proposing to increase the number of vehicles at this location. Other nearby uses on the North Access Road include the North Flare Yard, and nearby uses on Rochester Neck Road include WMNH's Leachate Treatment Plant and Gas to Energy Plants.

Resulting Employees: The proposed project will be automated and will be supported with existing on-site staff with the exception of occasional maintenance. WMNH is not proposing to increase employees with this change.

Hours of Operation: Facility operating hours shall be 24-hours, 7 days per week.

Off-street Parking: Parking spaces are not required for this project. Existing parking at the North Flare Yard and the Leachate Treatment Plant will be utilized.

Proposed Site Changes: The proposed development involves the following:

North Area:

- Constructing a pad to: (i) support a concrete slab for six (6) proposed treatment vessels and associated piping and electrical controls; (ii) allow for vehicular traffic associated with filling and emptying the vessels; (iii) support a booster blower skid and after cooler; (iv) provide space for temporary snow storage and site safety and security lighting; and

- Expanding Pond 7 and installing associated drainage features.

South Area:

- Installing two tanks on an existing concrete pad near the Leachate Treatment Plant;
- Installing associated piping.

Property Access: Access to the proposed areas will be via Turnkey Way, the same road used to access the existing facility. No changes to the intersection of Turnkey Way, Isinglass Drive and Rochester Neck Road are proposed.

Please contact me should you require additional information regarding this proposed development.

Sincerely,
WASTE MANAGEMENT OF NEW HAMPSHIRE, INC.



Anne Reichert, P.E.
Construction Project Manager

ESS/MNH:ess

Enclosures: Nonresidential Site Plan Application
Site Plan Checklist
Abutters List
Mailing Labels (2 per abutter, provided separately)
Waiver Requests
Narrative
11" x 17" Drawings
22" x 34" Drawings (3 copies, provided separately)
Drainage Report (2copies, provided separately)
Application Fee (provided separately)

Copies to: Bob Magnusson, WMNH
Timothy Reed, Sanborn Head



November 6, 2018

Mr. James B. Campbell, Director
Planning and Development Department
City of Rochester
31 Wakefield Street
Rochester, New Hampshire 03867

TURNKEY RECYCLING & ENVIRONMENTAL ENTERPRISE

30 Rochester Neck Road
P.O. Box 7065
Rochester, NH 03839
(603) 330-2197
(603) 330-2130 Fax

Re: Waiver from Site Plan Regulations
Site Plan Application – LFG Supplemental Treatment Systems
Turnkey Recycling and Environmental Enterprise
Rochester, New Hampshire

Dear Mr. Campbell:

Waste Management of New Hampshire, Inc. (WMNH) is requesting two waivers from the Site Plan Regulations (Regulations) for the above referenced project. The waiver requests are for: (i) the requirement to provide site development plans at a scale no less than one inch equals 50 feet [Article II, Section 5 (2)], and (ii) the requirement to provide the plans on mylar and blue or black line prints [Article II, Section 5 (3)].

SCALE WAIVER

Article II, Section 5 (2) of the Regulations requires that *"The scale of said plan shall not be less than one inch equals 50 feet."*

WMNH is requesting a waiver from this requirement for select drawings in the Site Plan Application and offers the following justification. The proposed LFG Supplemental Treatment Systems project spans two areas located north and south of the TLR-III Landfill and includes the modification of an existing 153,500-square foot pond. As such, a scale greater than one inch equals 50 feet was utilized on select drawings to depict the entire project area on one sheet and/or limit the number of sheets necessary to depict portions of the project. For these select sheets, using the required scale would limit the ability to depict the overall project, its context, connection between the various project components, and likely cause confusion when reviewing the plan set. The drawing scales used were selected to best present the proposed project.

PRINTING WAIVER

Article II, Section 5 (3) of the Regulations requires that *"The original of said plan shall be on mylar, and there shall also be submitted three blue or black line prints of any such plan."*

WMNH is requesting a waiver from this requirement as the use of mylar, blue line, and black line prints is outdated. As part of the application, WMNH provided 22 copies of the reduced drawings along with three full-size copies of the drawings, some of which contain color. Upon request, WMNH will provide the City with an electronic version of the drawings in Portable Document Format (*.pdf).

We trust that the above information fully addresses the City's need for a waiver request from the site development plan scale, printing, and underground utilities requirements for this project. Should you require additional information, please contact me at areichert@wm.com.

Very truly yours,
WASTE MANAGEMENT OF NEW HAMPSHIRE, INC.



Anne Reichert, P.E.
Construction Project Manager

MNH/ESS

Copies to: Bob Magnusson, WMNH
Eric Steinhauser, Sanborn Head

Site Plan Checklist (residential and nonresidential)
**To be filled out by applicant/agent (with notes to be inserted by staff)*
See regulations for other specific requirements
City of Rochester Planning & Development Department

Project Name: LFG Supplemental Treatment Systems Map: 267 Lot: 2&3 Date: November 6, 2018

Applicant/agent: Sanborn, Head & Associates, Inc. Signature: _____

(Staff review by: _____ Date: _____)

	Yes	No	N/A	Waiver Requested	Comments
<u>General items</u>					
<u>22</u> sets Completed application	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Total application fee	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>\$300.00</u>
<u>22</u> sets letter of intent	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<u>3</u> sets of full-size plans	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<u>22</u> sets of 11 X 17 reductions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Completed abutters list	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Copy of existing covenants, easements, deed restrictions	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
<u>Plan Information</u>					
Basic information including:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
• Title sheet					
• Name of project					
• Date					
• North arrow					
• Scale					
• Legend					
• Revision block					
• Vicinity sketch - not less than 1" = 1,000'					
Name and address of developer/applicant	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Name, stamp, and NH license # of land surveyor, engineer, and/or architect	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
City tax map & Lot #s	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Notation on plans: "For more information about this site plan contact..."	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Approval block (for signature by staff Attesting to Planning Board approval)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

<u>Existing Topographic Features Continued</u>	Yes	No	N/A	Waiver Requested	Comments
Water features (ponds, streams)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Wetlands including name of certified wetlands scientist who delineated	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Statement whether located in flood area, and if so, 100 year flood elevation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Delineation of treed and open areas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Overview of types of trees and vegetation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Stone walls and archaeological features	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Locations of trails and paths	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Other natural/cultural resources (productive farmland, habitats, scenic views, historic structures, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<u>Building Information</u>					
Existing buildings/structures including square footage and use	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See attached table
Proposed buildings/structures including square footage <ul style="list-style-type: none"> • first floor elevation • use • # bedrooms per unit if residential 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Elevation drawings of proposed buildings and structures as follows: <ul style="list-style-type: none"> • Showing all four sides • Drawn to scale with dimensions • Showing exterior materials • Showing exterior colors 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<u>Circulation and Parking Plan</u>					
Existing and proposed driveways and access point including: <ul style="list-style-type: none"> • Width of opening • Turning radii • Cross section of driveway 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Curbing & edge treatment	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Traffic control devices, if appropriate:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

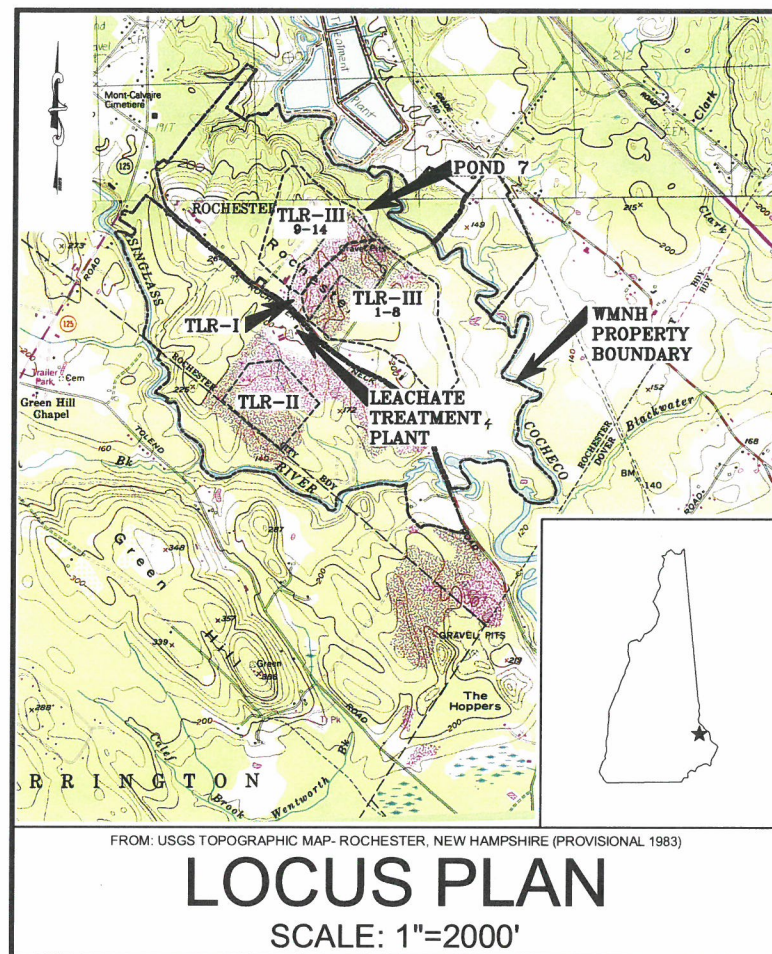
Landscaping Plan

	Yes	No	N/A	Waiver Requested	Comments
Demarcation of limits of construction, clear delineation of vegetation to be saved, and strategy for protecting vegetation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Proposed ground covers, shrubbery, and trees including: <ul style="list-style-type: none">• botanical and common names• locations and spacing• total number of each species• size at installation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Planting plan (size of holes, depth of planting, soil amendments, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Irrigation: system? soaker hose? Manual? underground, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Protection of landscaping from vehicles (Curb stops, berm, railroad ties, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Specification of all finished ground Surfaces and edges (greenspace, Mulch, asphalt, concrete, etc.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Fencing/screening.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
<u>Signage</u> Locations and types of signs: <ul style="list-style-type: none">• Attached to building• Freestanding• Directional, if appropriate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dimensions of signs: <ul style="list-style-type: none">• Height• Area• Setback	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Elevation drawings with colors & materials	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Type of illumination, if proposed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

LFG SUPPLEMENTAL TREATMENT SYSTEMS SITE PLAN APPLICATION DRAWINGS WASTE MANAGEMENT OF NEW HAMPSHIRE, INC.

ROCHESTER, NEW HAMPSHIRE

NOVEMBER 2018



SHEET INDEX

SHEET	TITLE
1	NOTES, LEGEND, AND ABBREVIATIONS
2	OVERALL SITE PLAN
3	NORTH AREA EXISTING CONDITIONS PLAN
4	PROPOSED NORTH AREA SITE PLAN
5	PROPOSED NORTH AREA CIRCULATION AND SIGNAGE PLAN
6	PROPOSED NORTH AREA UTILITIES PLAN
7	PROPOSED NORTH AREA SITE CROSS-SECTION
8	PROPOSED SOUTH AREA SITE PLAN AND CROSS-SECTIONS
9	PROPOSED POND 7 EXCAVATION PLAN AND DETAILS
10	POND 7 PLAN AND PROFILE
11-12	SITE AND ROADWAY DETAILS
13	EROSION AND SEDIMENT CONTROL DETAILS

FOR MORE INFORMATION ABOUT THESE PLANS, CONTACT THE CITY OF ROCHESTER PLANNING DEPARTMENT, 33 WAKEFIELD STREET, ROCHESTER, NH 03867 (603) 335-1338.

ROCHESTER PLANNING BOARD
APPROVAL CERTIFIED BY:

DATE:

THE DEVELOPMENT DEPICTED IN THESE DRAWINGS MUST BE IN COMPLIANCE WITH ALL APPLICABLE LAW-INCLUDING ALL PERTINENT PROVISIONS OF THE "CITY OF ROCHESTER SITE PLAN REGULATIONS"- UNLESS OTHERWISE WAIVED.



PREPARED FOR:



WASTE MANAGEMENT OF NEW HAMPSHIRE, INC.
ROCHESTER, NEW HAMPSHIRE

PREPARED BY:



20 FOUNDRY STREET, CONCORD, NEW HAMPSHIRE 03301
(603) 229-1900 FAX (603) 229-1919

© 2018 SANBORN HEAD & ASSOCIATES, INC.

REFERENCE NOTES

- EXISTING TOPOGRAPHY AND SITE FEATURES WERE PROVIDED TO SANBORN HEAD IN ELECTRONIC FILES TITLED "TREE18-01.DWG" THROUGH "TREE18-12.DWG" COMPILED USING PHOTOGRAMMETRIC METHODS BY QUANTUM SPATIAL OF DULLES, VIRGINIA FOR WASTE MANAGEMENT OF NEW HAMPSHIRE, INC. (WMNH) USING AERIAL PHOTOGRAPHY DATED APRIL 23, 2018 AT AN ORIGINAL SCALE OF 1" = 100' AND CONTOUR INTERVAL OF 2 FEET.
- VERTICAL DATUM IS BASED ON NGVD 1929. GRID IS BASED ON NEW HAMPSHIRE STATE PLANE COORDINATE SYSTEM NAD 1983.
- TLR-I LIMIT OF WASTE WAS TAKEN FROM A PLAN TITLED "TLR I PHASING PLAN" PREPARED BY RICHARD F. KAMINSKI & ASSOCIATES, INC. OF LAWRENCE, MASSACHUSETTS DATED MAY 27, 1998 AT A SCALE OF 1" = 100'.
- TLR-III LIMIT OF WASTE CONTAINMENT WAS TAKEN FROM THE PHASES 9-14 PERMIT DRAWINGS PREPARED FOR WMNH TITLED "TLR-III REFUSE DISPOSAL FACILITY PHASES 9-14" BY SANBORN HEAD DATED DECEMBER 2003 AND REVISED IN JUNE 2004.
- EXISTING MONITORING WELL AND GAS PROBE LOCATIONS WERE PROVIDED TO SANBORN HEAD BY WMNH.
- PROPERTY LINE INFORMATION WAS TAKEN FROM A PLAN TITLED "BOUNDARY COMPILATION AND FOOTPRINT COMPILATION OF TLR-I AND TLR-III, ROCHESTER NECK ROAD, GONIC, NEW HAMPSHIRE" PREPARED FOR WASTE MANAGEMENT OF NEW HAMPSHIRE, INC. BY CHAS. H. SELLS, INC. OF NASHUA, NEW HAMPSHIRE DATED JANUARY 29, 2002 AT A SCALE OF 1" = 300'.
- UTILITIES SHOWN IN THE AREA OF POND 7 WERE COMPILED BY SANBORN HEAD FROM AS-BUILT PLANS PREPARED BY RICHARD F. KAMINSKI & ASSOCIATES, INC. OF LAWRENCE, MASSACHUSETTS (KAMINSKI) AND DESIGN DRAWINGS BY SCS ENERGY OF LONG BEACH, CALIFORNIA (SCS) TITLED:
 - "AS-BUILT TLR-III (INITIAL CONSTRUCTION)" SHEET 3 OF 8 DATED JUNE 14, 1995 AND PREPARED KAMINSKI AT A SCALE OF 1"=50'.
 - "TLR-III REFUSE DISPOSAL FACILITY NORTH MECHANICALLY STABILIZED EARTH (MSE) BERM" SHEETS 1-3, 5, & 7-13 PREPARED BY KAMINKIA AT A SCALE OF 1"=50'; AND
 - "NORTH FLARE STATION AS-BUILTS" SHEETS 2 AND 3 DATED DECEMBER 28, 2006 PREPARED BY KAMINSKI AT A SCALE OF 1" = 10'; AND
 - "UNIVERSITY OF NEW HAMPSHIRE FACILITY DESIGN AND CONSTRUCTION"
- THE EXISTING UTILITIES SHOWN ON THESE PLANS DO NOT REPRESENT A COMPLETE COMPILATION OF ALL UTILITIES INSTALLED AT THE SITE. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER TO REVIEW ALL AS-BUILT DRAWINGS PRIOR TO EXCAVATING. DAMAGE CAUSED TO EXISTING UTILITIES DURING CONSTRUCTION WILL BE REPAIRED PROMPTLY BY THE CONTRACTOR AT NO COST TO THE OWNER.
- ZONING INFORMATION IS BASED ON THE CITY OF ROCHESTER, NH ZONING MAP PREPARED BY NORWAY PLAINS ASSOCIATES, INC. OF ROCHESTER, NEW HAMPSHIRE, ADOPTED APRIL 14, 2014 AND LAST AMENDED FEBRUARY 2, 2018.

ABBREVIATIONS

Ø	DIAMETER	MC	METAL COVER
A, ASPH	ASPHALT	MH	MANHOLE
AST	ABOVE-GROUND STORAGE TANK	MIN.	MINIMUM
CB	CATCH BASIN	MSE	MECHANICALLY STABILIZED EARTH
CEM.	CEMETERY	MW	MONITORING WELL
CFM	CUBIC FEET PER MINUTE	N	NORTHING
C, CONC	CONCRETE	NEC	NATIONAL ELECTRIC CODE
CMP	CORRUGATED METAL PIPE	NPT	NATIONAL PIPE THREAD
CPP	CORRUGATED POLYETHYLENE PIPE	O.C.	ON CENTER
E	EASTING	OD	OUTER DIAMETER
EL	ELEVATION	PE	POLYETHYLENE
FES	FLARED END SECTION	PVC	POLYVINYL CHLORIDE
FM	FORCE MAIN	RCP	REINFORCED CONCRETE PIPE
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	RMC	RIGID METAL CONDUIT
GP	GAS PROBE	RO	REVERSE OSMOSIS
HDPE	HIGH-DENSITY POLYETHYLENE	SCH	SCHEDULE
HDWL	HEAD WALL	SDR	STANDARD DIMENSION RATIO
HP	HIGH POINT, HORSEPOWER	SS	STAINLESS STEEL
H2S	HYDROGEN SULFIDE	TMH	TELEMETRY MANHOLE
INV.	INVERT	TP	TEST PIT
LMH	LEACHATE MANHOLE	TLR	TURNKEY LANDFILL OF ROCHESTER
LFG	LANDFILL GAS	TRANS	TRANSFORMER
LTP	LEACHATE TREATMENT PLANT	TYP	TYPICAL
MAX.	MAXIMUM	UST	UNDER-GROUND STORAGE TANK

MATERIAL SPECIFICATIONS

- ORDINARY FILL SHALL BE NATURAL SOIL WITH NO PARTICLES LARGER THAN 8 INCHES.
- GRANULAR FILL SHALL BE NATURAL SOIL WITH NO PARTICLES LARGER THAN 1 INCH.
- CRUSHED STONE SHALL HAVE A MAXIMUM PARTICLE SIZE OF 1-1/2 INCHES.
- TYPE I RIPRAP SHALL CONSIST OF STONE RANGING IN SIZE FROM 2 TO 12 INCHES WITH A D₅₀ OF 6 INCHES.
- TYPE II RIPRAP SHALL CONSIST OF STONE RANGING IN SIZE FROM 2 TO 24 INCHES WITH A D₅₀ OF 12 INCHES.

LEGEND

EXISTING CONDITIONS

---	PROPERTY LINE
.....	TLR-I LIMIT OF WASTE CONTAINMENT
---	LIMIT OF WASTE CONTAINMENT
-----184-----	2-FOOT ELEVATION CONTOUR
-----180-----	10-FOOT ELEVATION CONTOUR
---	EDGE OF PAVED ROAD
---	UNPAVED ROAD
---	EDGE OF WATER
---FM---FM---	FORCE MAIN
---GM---GM---	GRAVITY MAIN
---OU---OU---	OVERHEAD UTILITIES
---UE---UE---	UNDERGROUND ELECTRIC
---T---T---	TELEMETRY LINE
---LFG---LFG---	LANDFILL GAS PIPE
---CD---CD---	CONDENSATE DRAIN
---W---W---	WATER MAIN
---G---G---	PROPANE GAS LINE
---G---G---	STORMWATER DRAINAGE CULVERT
---X---X---	FENCE
---	TREE LINE
---	GUARDRAIL
---	DRAINAGE CULVERT
---	PAVED AREA
---	CONCRETE
---	WETLAND AREA
---	RIPRAP
---	GABION-LINED SWALE
---	UTILITY POLE
---	POST
---	MISC. OBJECT
---	SIGN
---	LIGHT POST
---	TREE/BUSH
---	FORCE MAIN MANHOLE
---	GRAVITY MAIN MANHOLE
---	MONITORING WELL AND DESIGNATION
---	GAS PROBE AND DESIGNATION
---	CULVERT HEADWALL
---	LANDFILL GAS CONTROL VALVE

PROPOSED CONDITIONS

---	LIMIT OF DISTURBANCE
-----182-----	2-FOOT ELEVATION CONTOUR
-----180-----	10-FOOT ELEVATION CONTOUR
---	EDGE OF ROAD
---	SLOPE BREAK
---	LANDFILL GAS PIPE
---CD---CD---	CONDENSATE DRAIN
---UE---UE---	UNDERGROUND ELECTRIC
---E---E---	ELECTRIC
---G---G---	GROUND ELECTRODE SYSTEM
---	GUARDRAIL
---	50-FT WETLAND BUFFER
---	SHORELAND SETBACK
---	DRAINAGE CULVERT
---	DRAINAGE CULVERT DESIGNATION
---	FILTER LOG
---	PAVED AREA
---	RIPRAP
---	GRANULAR FILL
---	CONCRETE
---	CRUSHED STONE
---	GRAVEL
N 272000 E 1170000	COORDINATES
X 159.00	SPOT ELEVATION
X HP	HIGH POINT
---	LANDFILL GAS CONTROL VALVE
---	POLE MOUNTED LIGHT

FOR MORE INFORMATION ABOUT THESE PLANS, CONTACT THE CITY OF ROCHESTER PLANNING DEPARTMENT, 33 WAKEFIELD STREET, ROCHESTER, NH 03867 (603) 335-1338.

ROCHESTER PLANNING BOARD
APPROVAL CERTIFIED BY:

DATE:

SANBORN HEAD

SCALE: AS NOTED



DRAWN BY: A. MATTHEWS
DESIGNED BY: A. MATTHEWS
REVIEWED BY: T. REED
PROJECT MGR: T. REED
PIC: E. STEINHAUSER
DATE: NOVEMBER 2018

LFG SUPPLEMENTAL TREATMENT SYSTEMS
SITE PLAN APPLICATION DRAWINGS
WASTE MANAGEMENT OF NEW HAMPSHIRE, INC
ROCHESTER, NEW HAMPSHIRE

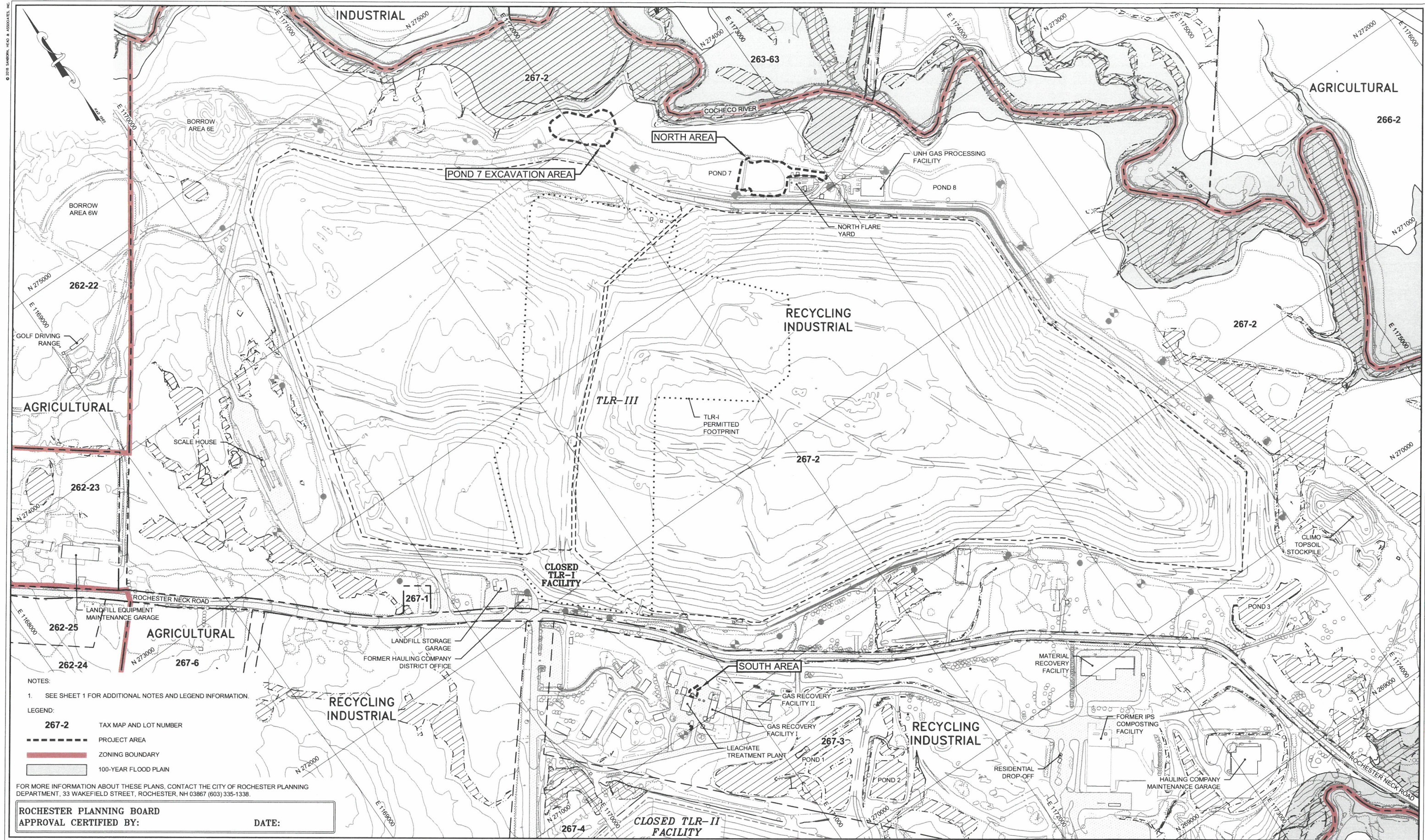
PROJECT NUMBER:

4413.00

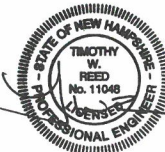
NOTES, LEGEND, AND
ABBREVIATIONS

SHEET NUMBER:

1 OF 13



SANBORN HEAD

[illegible]

DRAWN BY: A. MATTHEWS
DESIGNED BY: A. MATTHEWS
REVIEWED BY: T. REED
PROJECT MGR: T. REED
PIC: E. STEINHAUSER
DATE: NOVEMBER 2018

LFG SUPPLEMENTAL TREATMENT SYSTEMS
SITE PLAN APPLICATION DRAWINGS
WASTE MANAGEMENT OF NEW HAMPSHIRE, INC
ROCHESTER, NEW HAMPSHIRE

OVERALL SITE PLAN

PROJECT NUMBER:

4413.00

SHEET NUMBER:

2 OF 13

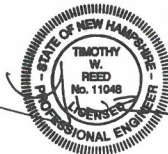
1. SEE SHEET 1 FOR ADDITIONAL NOTES AND LEGEND INFORMATION.
2. LOCATIONS OF CONDUIT TRENCHES WERE APPROXIMATED BASED ON DESIGN DRAWINGS TITLED "ELECTRICAL SITE PLAN, LANDFILL GAS PROCESSING FACILITY, UNIVERSITY OF NEW HAMPSHIRE AT WASTE MANAGEMENT TURNKEY LANDFILL," PREPARED BY SCS ENERGY OF LONG BEACH, CALIFORNIA DATED JANUARY 11, 2008. ACTUAL LOCATIONS MAY VARY.
3. ALL UTILITIES SHOWN SHALL BE FIELD VERIFIED BEFORE CONSTRUCTION BEGINS. SANBORN HEAD DID NOT FIELD VERIFY LOCATIONS OF UTILITIES. OTHER UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN.



ROCHESTER PLANNING BOARD
APPROVAL CERTIFIED BY:

DATE:

SANBORN || HEAD



NO.	DATE	DESCRIPTION	BY

DRAWN BY: A. MATTHEWS
DESIGNED BY: A. MATTHEWS
REVIEWED BY: T. REED
PROJECT MGR: T. REED
PIC: E. STEINHAUSER
DATE: NOVEMBER 2018

LFG SUPPLEMENTAL TREATMENT SYSTEMS
SITE PLAN APPLICATION DRAWINGS
WASTE MANAGEMENT OF NEW HAMPSHIRE, INC
ROCHESTER, NEW HAMPSHIRE

NORTH AREA EXISTING CONDITIONS PLAN

PROJECT NUMBER:

4413.00

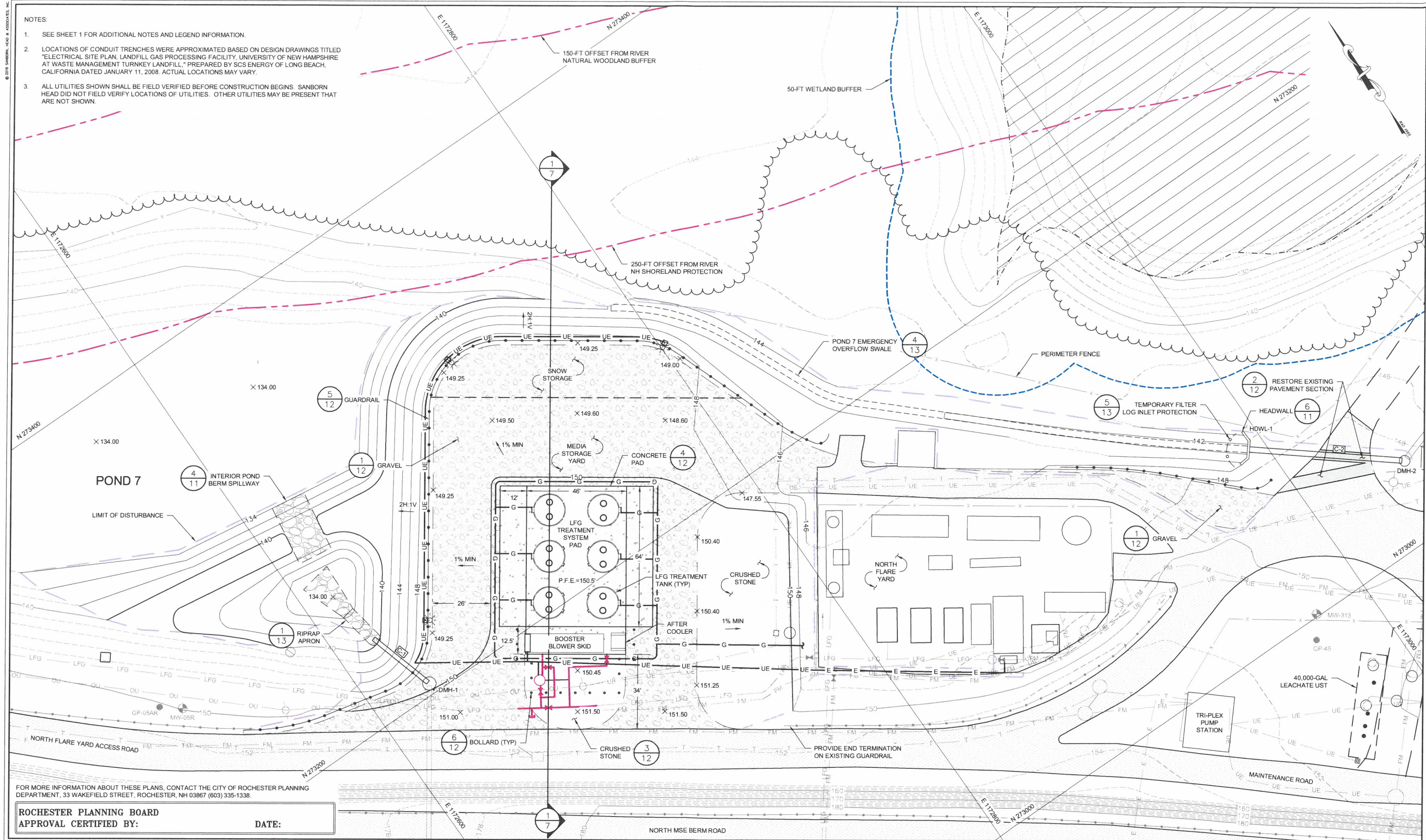
SHEET NUMBER:

3 OF 13

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NOTES:

1. SEE SHEET 1 FOR ADDITIONAL NOTES AND LEGEND INFORMATION.
2. LOCATIONS OF CONDUIT TRENCHES WERE APPROXIMATED BASED ON DESIGN DRAWINGS TITLED "ELECTRICAL SITE PLAN, LANDFILL GAS PROCESSING FACILITY, UNIVERSITY OF NEW HAMPSHIRE AT WASTE MANAGEMENT TURNKEY LANDFILL," PREPARED BY SCS ENERGY OF LONG BEACH, CALIFORNIA DATED JANUARY 11, 2008. ACTUAL LOCATIONS MAY VARY.
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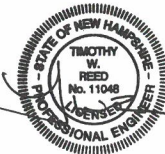


FOR MORE INFORMATION ABOUT THESE PLANS, CONTACT THE CITY OF ROCHESTER PLANNING DEPARTMENT, 33 WAKEFIELD STREET, ROCHESTER, NH 03867 (603) 335-1338.

ROCHESTER PLANNING BOARD
APPROVAL CERTIFIED BY:

DATE:

SANBORN HEAD



NO.	DATE	DESCRIPTION	BY
-----	------	-------------	----

DRAWN BY: A. MATTHEWS
DESIGNED BY: A. MATTHEWS
REVIEWED BY: T. REED
PROJECT MGR: T. REED
PIC: E. STEINHAUSER
DATE: NOVEMBER 2018

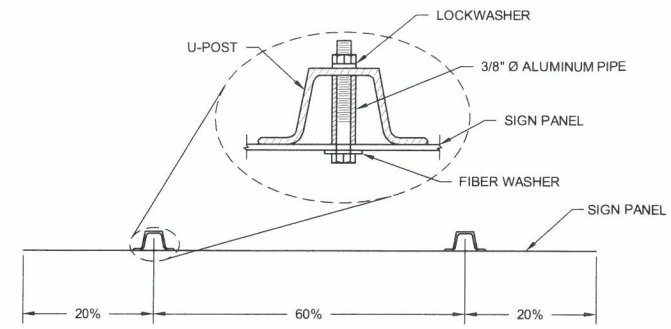
LFG SUPPLEMENTAL TREATMENT SYSTEMS
SITE PLAN APPLICATION DRAWINGS
WASTE MANAGEMENT OF NEW HAMPSHIRE, INC
ROCHESTER, NEW HAMPSHIRE

PROPOSED NORTH AREA SITE PLAN

PROJECT NUMBER:
4413.00
SHEET NUMBER:
4 OF 13

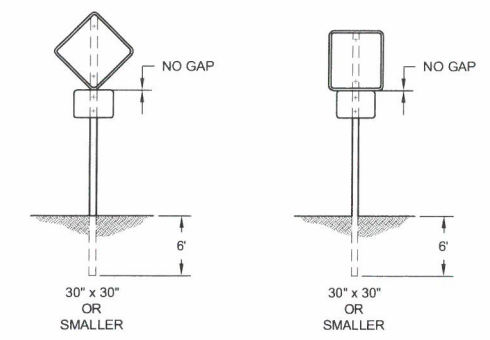
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- NOTES:
1. SEE SHEET 1 FOR ADDITIONAL NOTES AND LEGEND INFORMATION.
 2. VEHICLE MODELED WAS A 8'-2" WIDE BY 40' LONG PUMPER TRUCK.
 3. CIRCULATION MODEL PERFORMED USING AUTODESK VEHICLE TRACKING 2019.



STEEL U-POST SPACING

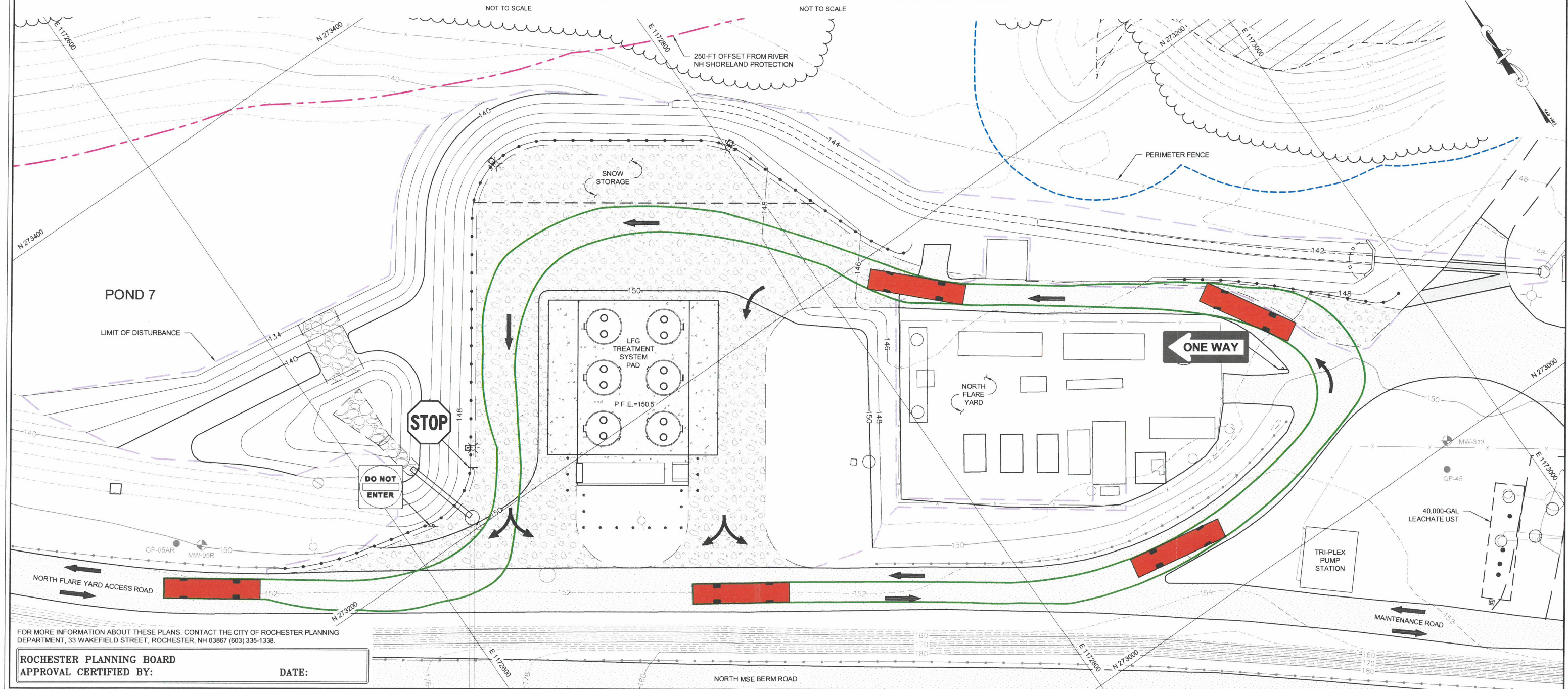
NOT TO SCALE



SIGN VERTICAL DIMENSION

NOT TO SCALE

NEW SIGNAGE SCHEDULE								
MUTCD ID NUMBER	NUMBER OF SIGNS REQUIRED	WIDTH (INCHES)	HEIGHT (INCHES)	TEXT	LETTER HEIGHT (INCHES)	ARROW LENGTH (INCHES)	VERTICAL DISTANCE BETWEEN ROAD SURFACE AND BOTTOM OF SIGN (FT)	NUMBER OF POSTS
R1-1	1	30	30	STOP	10C	—	5	1
R5-1	1	30	30	DO NOT ENTER	4D	—	5	1
R6-1R	1	36	12	ONE WAY	4D	—	6	1



FOR MORE INFORMATION ABOUT THESE PLANS, CONTACT THE CITY OF ROCHESTER PLANNING DEPARTMENT, 33 WAKEFIELD STREET, ROCHESTER, NH 03867 (603) 335-1338.

ROCHESTER PLANNING BOARD
APPROVAL CERTIFIED BY: _____ DATE: _____

SANBORN HEAD

GRAPHICAL SCALE
20' 10' 0' 20' 40'

STATE OF NEW HAMPSHIRE
TIMOTHY W. REED
No. 11048
LICENSED PROFESSIONAL ENGINEER

NO.	DATE	DESCRIPTION	BY

DRAWN BY: A. MATTHEWS
DESIGNED BY: A. MATTHEWS
REVIEWED BY: T. REED
PROJECT MGR: T. REED
PIC: E. STEINHAUSER
DATE: NOVEMBER 2018

LFG SUPPLEMENTAL TREATMENT SYSTEMS
SITE PLAN APPLICATION DRAWINGS
WASTE MANAGEMENT OF NEW HAMPSHIRE, INC
ROCHESTER, NEW HAMPSHIRE

PROPOSED NORTH AREA
CIRCULATION AND SIGNAGE PLAN

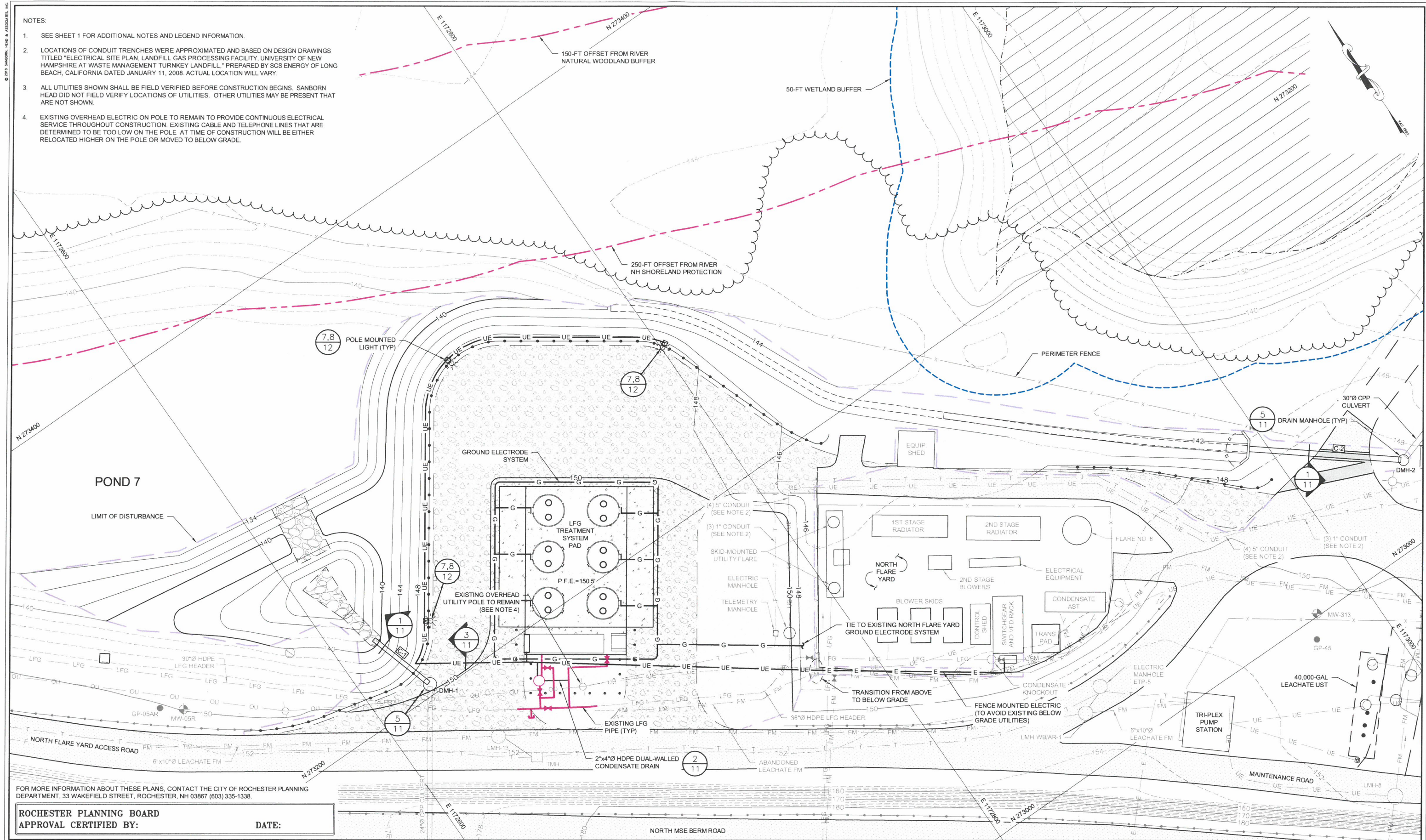
PROJECT NUMBER:
4413.00

SHEET NUMBER:
5 OF 13

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NOTES:

1. SEE SHEET 1 FOR ADDITIONAL NOTES AND LEGEND INFORMATION.
2. LOCATIONS OF CONDUIT TRENCHES WERE APPROXIMATED AND BASED ON DESIGN DRAWINGS TITLED "ELECTRICAL SITE PLAN, LANDFILL GAS PROCESSING FACILITY, UNIVERSITY OF NEW HAMPSHIRE AT WASTE MANAGEMENT TURNKEY LANDFILL," PREPARED BY SCS ENERGY OF LONG BEACH, CALIFORNIA DATED JANUARY 11, 2008. ACTUAL LOCATION WILL VARY.
3. ALL UTILITIES SHOWN SHALL BE FIELD VERIFIED BEFORE CONSTRUCTION BEGINS. SANBORN HEAD DID NOT FIELD VERIFY LOCATIONS OF UTILITIES. OTHER UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN.
4. EXISTING OVERHEAD ELECTRIC ON POLE TO REMAIN TO PROVIDE CONTINUOUS ELECTRICAL SERVICE THROUGHOUT CONSTRUCTION. EXISTING CABLE AND TELEPHONE LINES THAT ARE DETERMINED TO BE TOO LOW ON THE POLE AT TIME OF CONSTRUCTION WILL BE EITHER RELOCATED HIGHER ON THE POLE OR MOVED TO BELOW GRADE.



FOR MORE INFORMATION ABOUT THESE PLANS, CONTACT THE CITY OF ROCHESTER PLANNING DEPARTMENT, 33 WAKEFIELD STREET, ROCHESTER, NH 03867 (603) 335-1338.

ROCHESTER PLANNING BOARD
APPROVAL CERTIFIED BY: _____ DATE: _____

GRAPHICAL SCALE

20' 10' 0' 20' 40'

NO.	DATE	DESCRIPTION	BY

DRAWN BY: A. MATTHEWS
DESIGNED BY: A. MATTHEWS
REVIEWED BY: T. REED
PROJECT MGR: T. REED
PIC: E. STEINHAUSER
DATE: NOVEMBER 2018

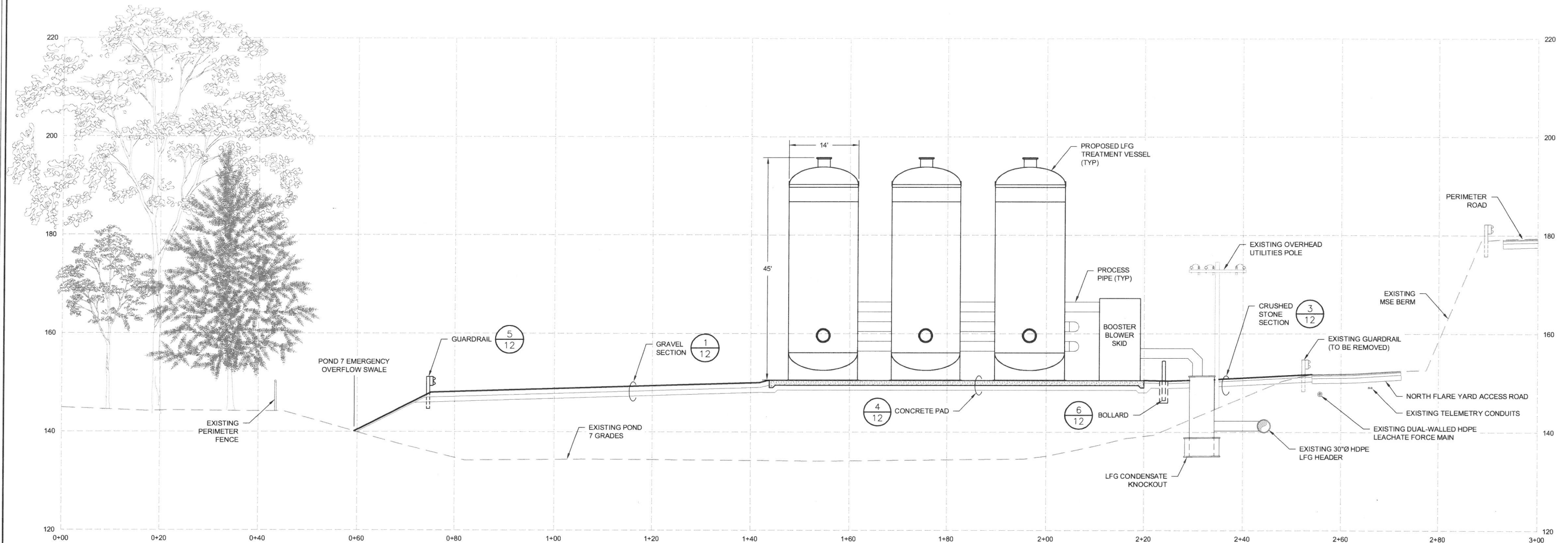
LFG SUPPLEMENTAL TREATMENT SYSTEMS
SITE PLAN APPLICATION DRAWINGS
WASTE MANAGEMENT OF NEW HAMPSHIRE, INC
ROCHESTER, NEW HAMPSHIRE

PROPOSED NORTH AREA
UTILITIES PLAN

PROJECT NUMBER:
4413.00

SHEET NUMBER:
6 OF 13

REFERENCES: P:\4000\4413\00\Graphics Files\CAD\CON\ST\Wells\2016 BASE.dwg
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NORTH AREA PROFILE

NOT TO SCALE

NOTES:

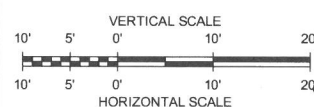
1. SEE SHEET 1 FOR ADDITIONAL NOTES AND LEGEND INFORMATION.
2. ALL UTILITIES SHOWN SHALL BE FIELD VERIFIED BEFORE CONSTRUCTION BEGINS. SANBORN HEAD DID NOT FIELD VERIFY LOCATIONS OF UTILITIES. OTHER UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN.
3. APPROXIMATE TREE ELEVATIONS WERE OBTAINED FROM GOOGLE EARTH.

FOR MORE INFORMATION ABOUT THESE PLANS, CONTACT THE CITY OF ROCHESTER PLANNING DEPARTMENT, 33 WAKEFIELD STREET, ROCHESTER, NH 03867 (603) 335-1338.

ROCHESTER PLANNING BOARD
APPROVAL CERTIFIED BY:

DATE:

SANBORN HEAD

[illegible]

DRAWN BY: M. HOCK
DESIGNED BY: A. MATTHEWS
REVIEWED BY: T. REED
PROJECT MGR: T. REED
PIC: E. STEINHAUSER
DATE: NOVEMBER 2018

LFG SUPPLEMENTAL TREATMENT SYSTEMS
SITE PLAN APPLICATION DRAWINGS
WASTE MANAGEMENT OF NEW HAMPSHIRE, INC
ROCHESTER, NEW HAMPSHIRE

PROPOSED NORTH AREA SITE CROSS-SECTION

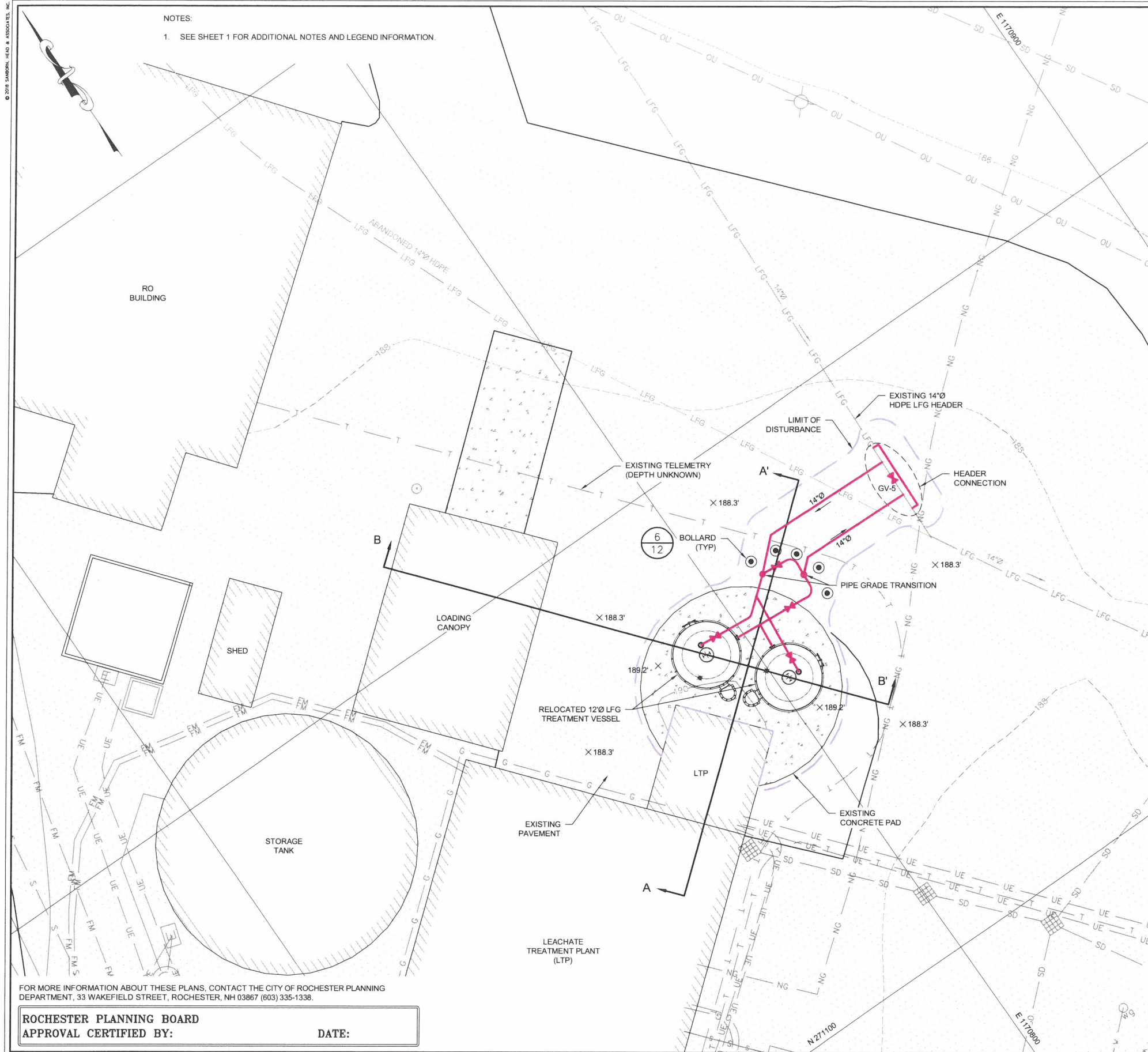
PROJECT NUMBER:

4413.00

SHEET NUMBER:

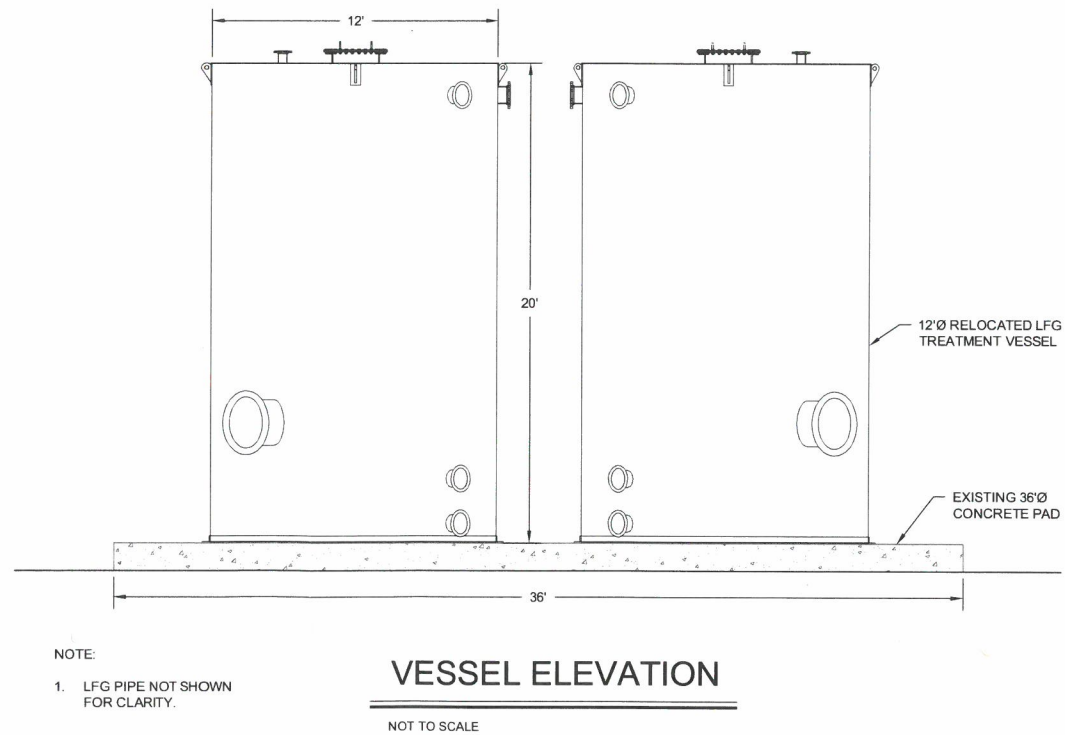
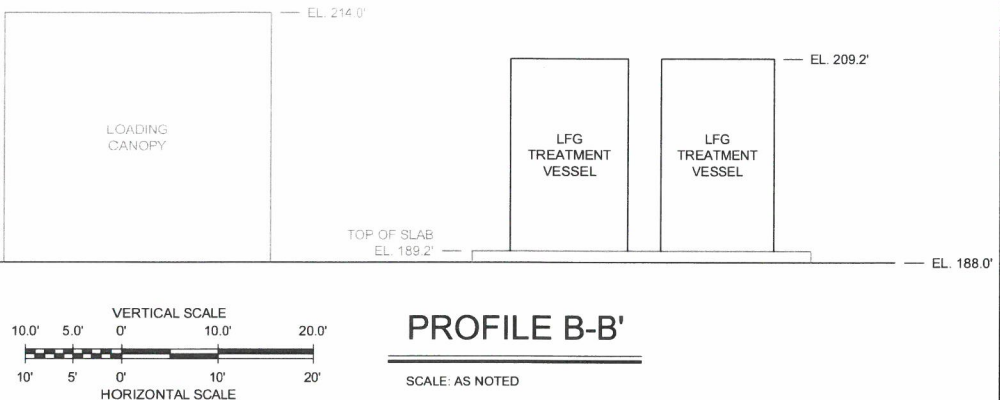
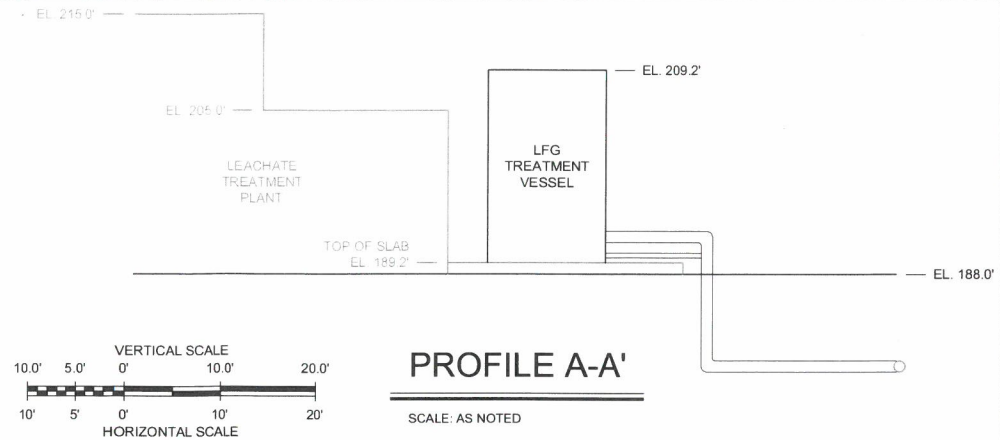
7 OF 13

NOTES:
1. SEE SHEET 1 FOR ADDITIONAL NOTES AND LEGEND INFORMATION.

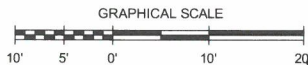


FOR MORE INFORMATION ABOUT THESE PLANS, CONTACT THE CITY OF ROCHESTER PLANNING DEPARTMENT, 33 WAKEFIELD STREET, ROCHESTER, NH 03867 (603) 335-1338.

ROCHESTER PLANNING BOARD
APPROVAL CERTIFIED BY: _____ DATE: _____



SANBORN HEAD

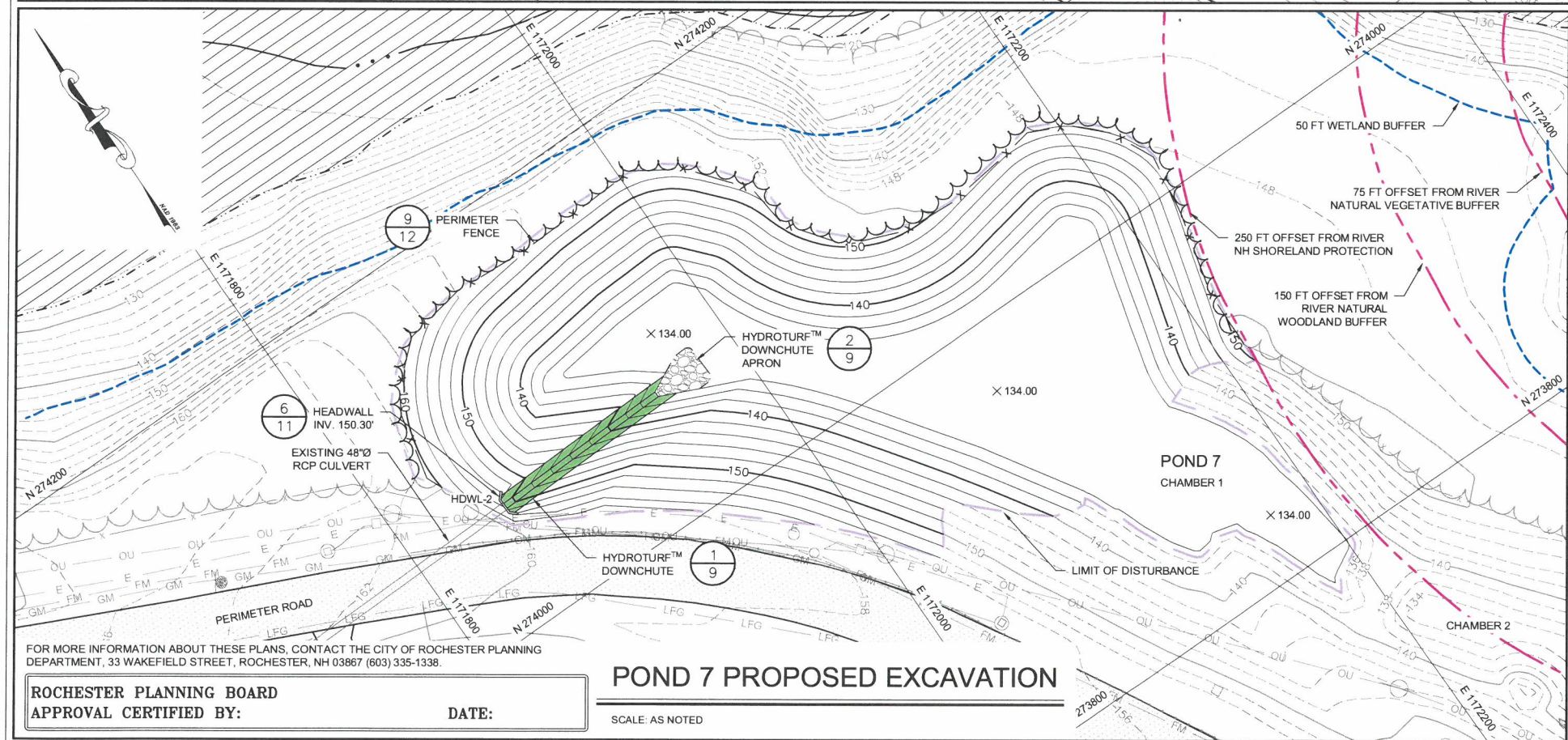
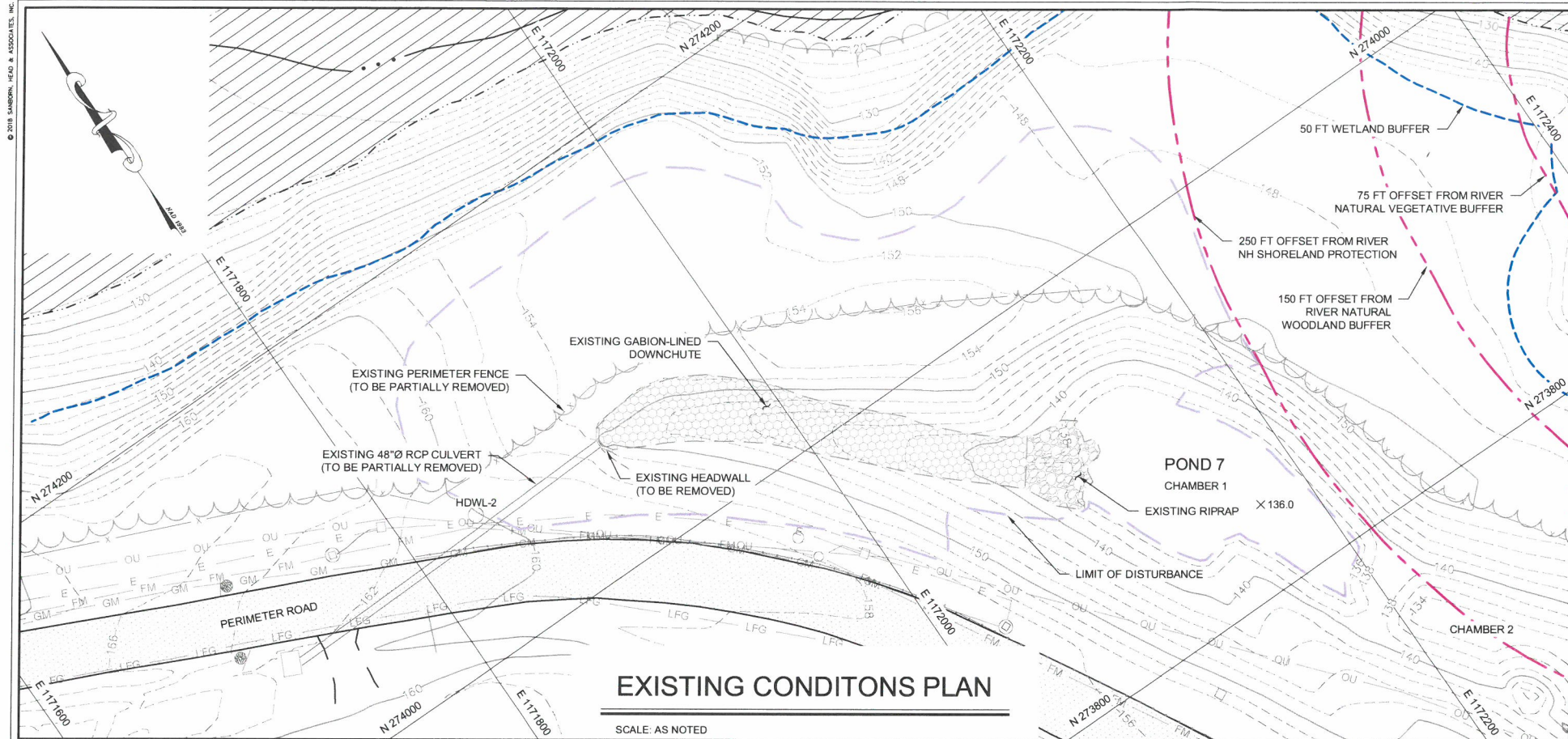


NO.	DATE	DESCRIPTION	BY

DRAWN BY: A. MATTHEWS
DESIGNED BY: A. MATTHEWS
REVIEWED BY: T. REED
PROJECT MGR: T. REED
PIC: E. STEINHAUSER
DATE: NOVEMBER 2018

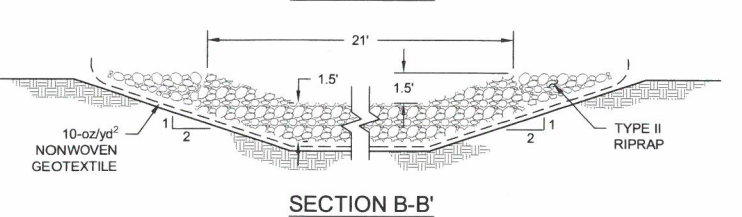
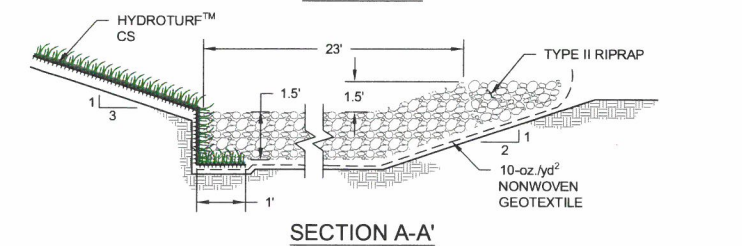
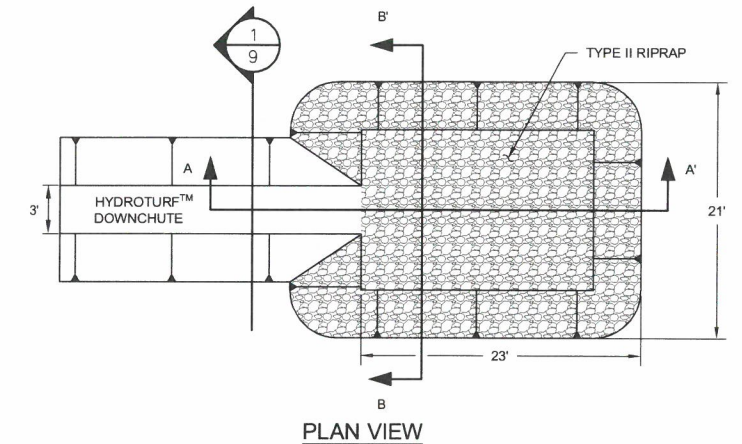
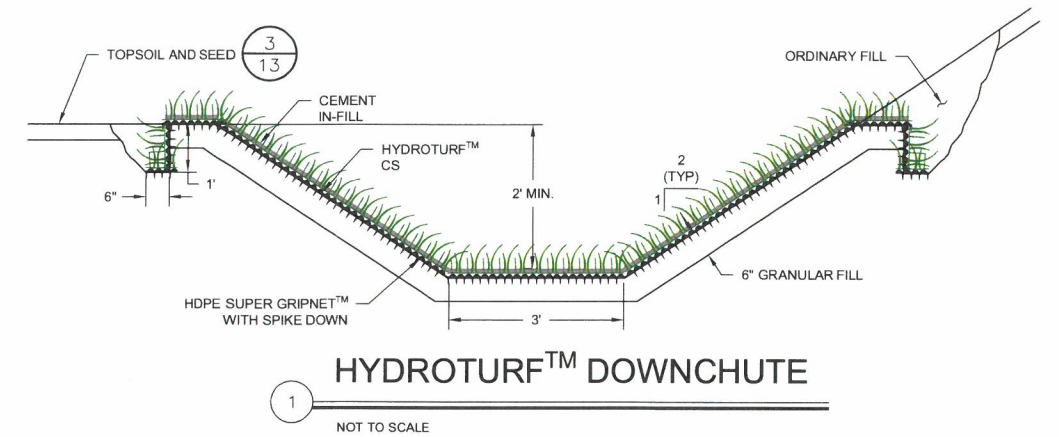
LFG SUPPLEMENTAL TREATMENT SYSTEMS
SITE PLAN APPLICATION DRAWINGS
WASTE MANAGEMENT OF NEW HAMPSHIRE, INC
ROCHESTER, NEW HAMPSHIRE
**PROPOSED SOUTH AREA SITE PLAN
AND CROSS-SECTIONS**

PROJECT NUMBER:
4413.00
SHEET NUMBER:
8 OF 13



NOTES:

- SEE SHEET 1 FOR ADDITIONAL NOTES AND LEGEND INFORMATION.
- ALL UTILITIES SHOWN SHALL BE FIELD VERIFIED BEFORE CONSTRUCTION BEGINS. SANBORN HEAD DID NOT FIELD VERIFY LOCATIONS OF UTILITIES. OTHER UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN.
- 10-oz/yd² GEOTEXTILE SHALL BE PLACED UNDER HYDROTURF™ AND DAY LIGHTED AT EDGE FOR INSPECTION.
- HYDROTURF™ SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.



HYDROTURF™ DOWNCHUTE APRON

NOT TO SCALE

ROCHESTER PLANNING BOARD
APPROVAL CERTIFIED BY:

DATE:

POND 7 PROPOSED EXCAVATION

SCALE: AS NOTED

SANBORN HEAD



DRAWN BY: A. MATTHEWS
DESIGNED BY: A. MATTHEWS
REVIEWED BY: T. REED
PROJECT MGR: T. REED
PIC: E. STEINHAUSER
DATE: NOVEMBER 2018

LFG SUPPLEMENTAL TREATMENT SYSTEMS
SITE PLAN APPLICATION DRAWINGS
WASTE MANAGEMENT OF NEW HAMPSHIRE, INC
ROCHESTER, NEW HAMPSHIRE

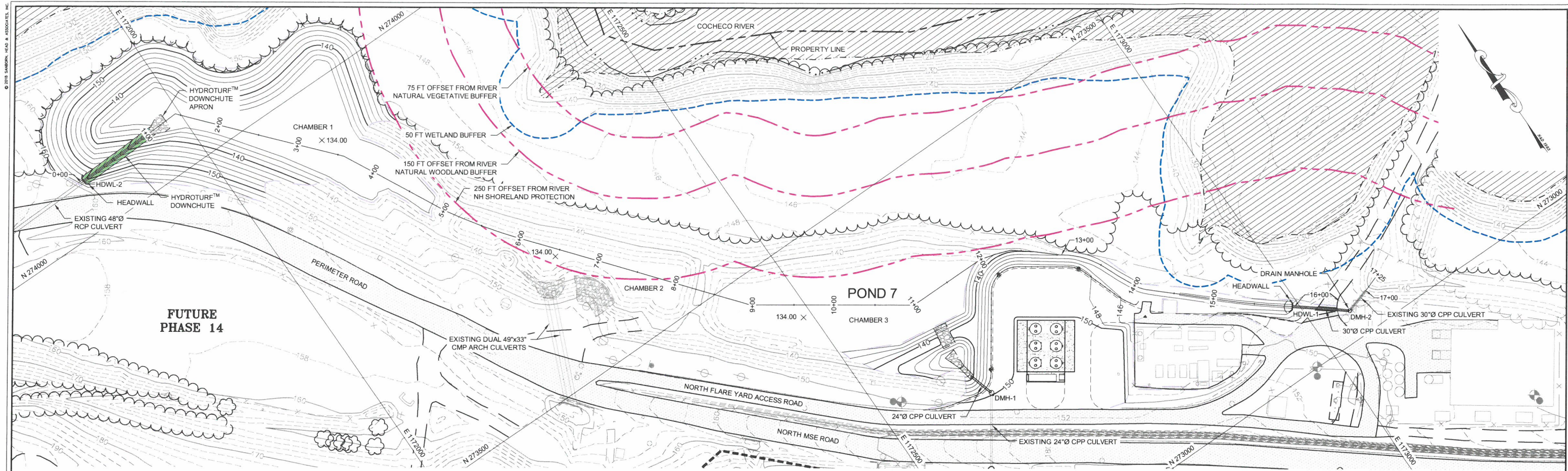
PROPOSED POND 7 EXCAVATION
PLAN AND DETAILS

PROJECT NUMBER:

4413.00

SHEET NUMBER:

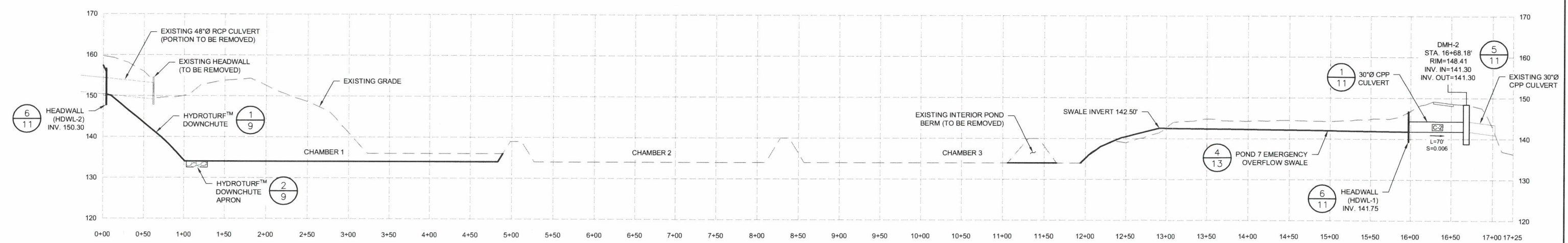
9 OF 13



- NOTES:
- SEE SHEET 1 FOR ADDITIONAL NOTES AND LEGEND INFORMATION.
 - ALL UTILITIES SHOWN SHALL BE FIELD VERIFIED BEFORE CONSTRUCTION BEGINS. SANBORN HEAD DID NOT FIELD VERIFY LOCATIONS OF UTILITIES. OTHER UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN.

POND 7 PLAN

NOT TO SCALE

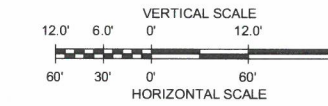


FOR MORE INFORMATION ABOUT THESE PLANS, CONTACT THE CITY OF ROCHESTER PLANNING DEPARTMENT, 33 WAKEFIELD STREET, ROCHESTER, NH 03867 (603) 335-1338.

ROCHESTER PLANNING BOARD
APPROVAL CERTIFIED BY: _____ DATE: _____

POND 7 PROFILE

NOT TO SCALE



SANBORN HEAD

SCALE: AS NOTED

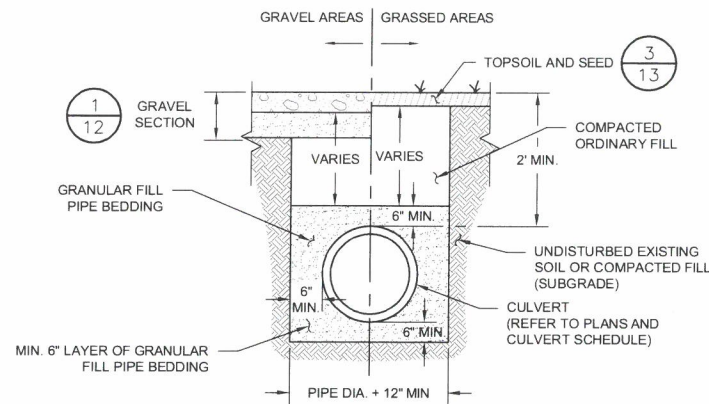


NO.	DATE	DESCRIPTION	BY

DRAWN BY: A. MATTHEWS
DESIGNED BY: A. MATTHEWS
REVIEWED BY: T. REED
PROJECT MGR: T. REED
PIC: E. STEINHAUSER
DATE: NOVEMBER 2018

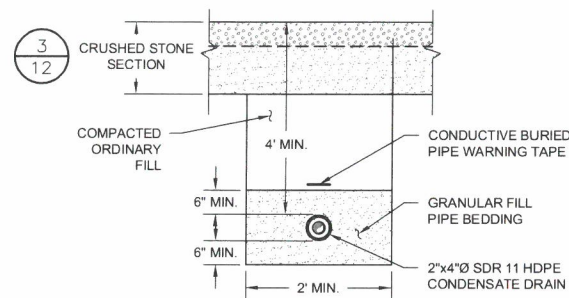
LFG SUPPLEMENTAL TREATMENT SYSTEMS SITE PLAN APPLICATION DRAWINGS WASTE MANAGEMENT OF NEW HAMPSHIRE, INC ROCHESTER, NEW HAMPSHIRE	PROJECT NUMBER: 4413.00
POND 7 PLAN AND PROFILE	SHEET NUMBER: 10 OF 13

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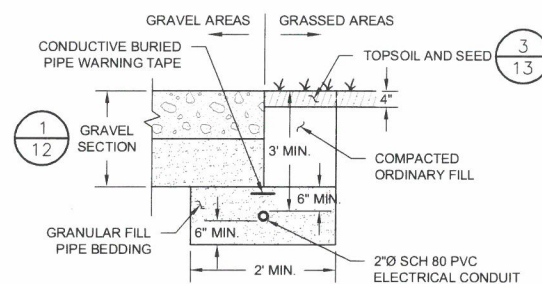
CULVERT TRENCH SECTION

1
NOT TO SCALE



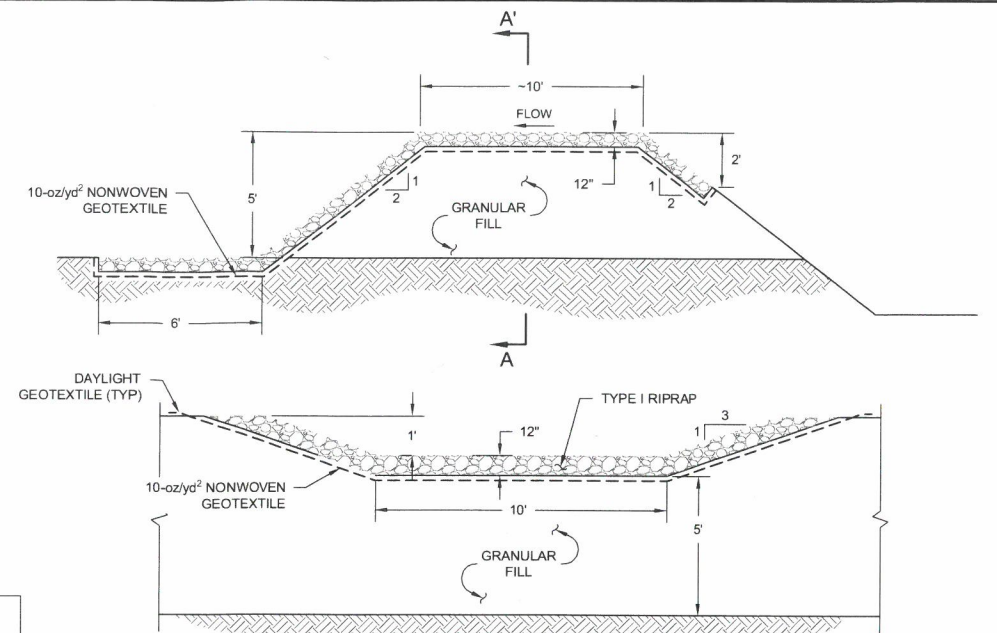
FORCE MAIN TRENCH

2
NOT TO SCALE



ELECTRICAL TRENCH

3
NOT TO SCALE



SECTION A-A': SECTION THROUGH RIPRAP-LINED SPILLWAY

INTERIOR POND BERM SPILLWAY

4
NOT TO SCALE

CULVERT SCHEDULE									
CULVERT	DESCRIPTION	TYPE	DIAMETER (IN)	LENGTH (FT)	INLET END	OUTLET END	INV. IN (FT)	INV. OUT (FT)	SLOPE (FT/FT)
C-1	DMH-1 TO POND 7	CPP	24	32	DMH-1	PROJ	143.28	139.00	0.134
C-2	HDWL-1 TO DMH-2	CPP	30	70	HDWL-1	DMH-2	141.75	141.30	0.006

NOTES:

- THE PROPOSED INVERT ELEVATIONS SHOWN IN THESE SCHEDULES REPRESENT DESIGN ELEVATIONS WHICH ARE BASED ON DESIGN OR EXISTING CULVERT INVERT ELEVATIONS. THE INTENT IS THAT THE CULVERTS BE INSTALLED WITH THE PROPOSED SLOPE AND ELEVATIONS AT THE INVERTS OF CORRESPONDING EXISTING SWALES OR CHANNELS. IF THE ACTUAL INVERT ELEVATIONS DIFFER SIGNIFICANTLY DURING INSTALLATION FROM THOSE INDICATED, OBTAIN APPROVAL FROM ENGINEER PRIOR TO BACKFILLING OVER THE PIPES. GRADES SHALL BE CONFIRMED FOR SHOP DRAWING APPROVAL BY ENGINEER.

- WALL THICKNESS SHOWN ARE FOR REFERENCE ONLY. ACTUAL WALL THICKNESSES SHALL BE DETERMINED BY THE PRECAST CONCRETE MANUFACTURER AT TIME OF CONSTRUCTION. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS TO THE ENGINEER FOR REVIEW.

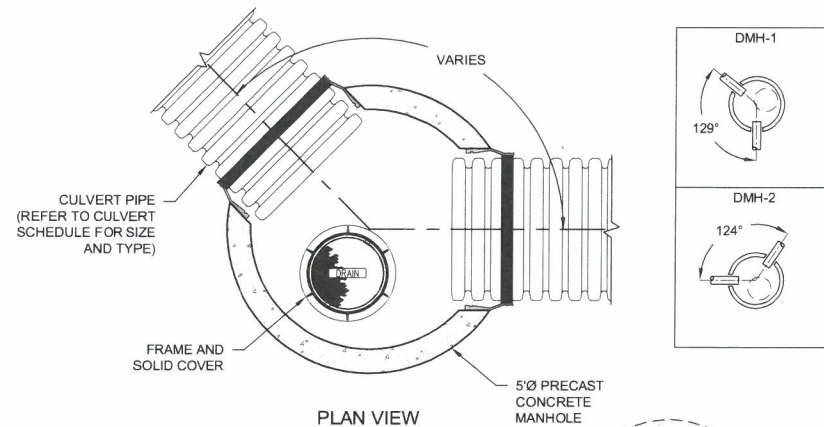
- THE LIST BELOW CONTAINS ABBREVIATIONS SHOWN SPECIFICALLY ON THIS SHEET.

CB = CATCH BASIN
CPP = CORRUGATED POLYETHYLENE PIPE
DMH = DRAINAGE MANHOLE
EX. PIPE = EXISTING PIPE
HDWL = HEADWALL
PROJ = PROJECTING
RCP = REINFORCED CONCRETE PIPE

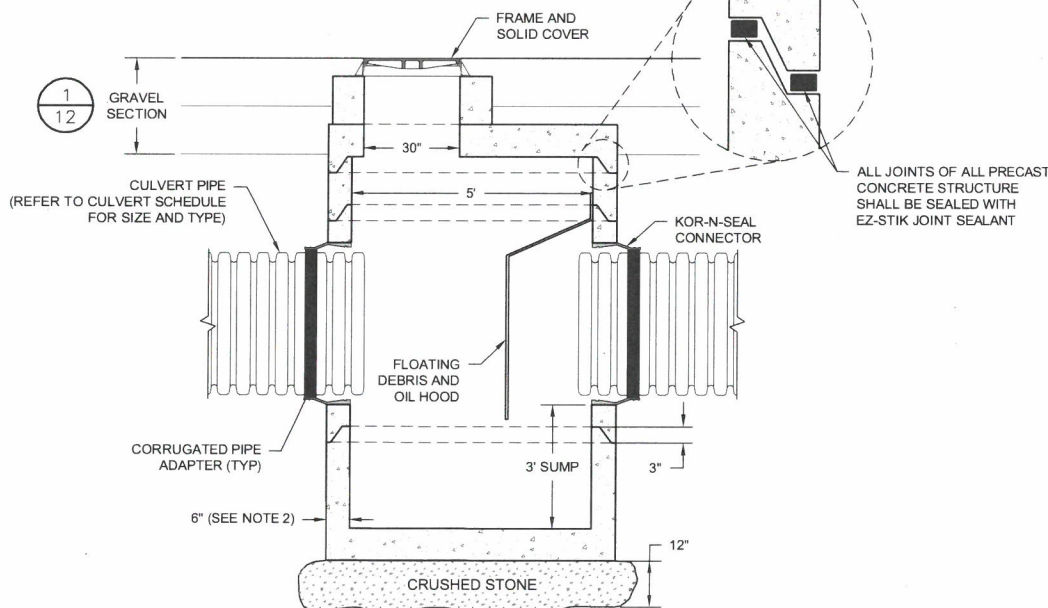
DRAINAGE STRUCTURE SCHEDULE				
STRUCTURE	SIZE	RIM ELEV.	INLET	OUTLET
DMH-1	5'Ø	149.60	EX. PIPE	C-1
DMH-2	5'Ø	148.41	C-2	EX. PIPE
HDWL-1	14'-4" x 8'	N/A	TRASH RACK	C-2
HDWL-2	16' x 8'	N/A	TRASH RACK	DOWNCHUTE

DRAINAGE STRUCTURE PARTS LIST:

FRAME AND SOLID COVER	NEENAH FOUNDRY CO. MODEL 3570-A OR EQUIVALENT APPROVED BY THE ENGINEER
EZ-STIK JOINT SEALANT	BUTYL-RUBBER-BASED PREFORMED FLEXIBLE SEALANT: EZ-STIK, MANUFACTURED BY PRESS-SEAL GASKET CORP. OF FORT WAYNE, INDIANA, OR EQUIVALENT APPROVED BY ENGINEER
KOR-N-SEAL CONNECTOR	KOR-N-SEAL CONNECTOR BY TRELLEBORG PIPE SEALS MILFORD OR EQUIVALENT APPROVED BY ENGINEER
	24"Ø CPP: MODEL S206-32 30"Ø CPP: MODEL S206-40 48"Ø RCP: MODEL S206-48L
CORRUGATED PIPE ADAPTER	WATERTIGHT CORRUGATED PIPE ADAPTER BY TRELLEBORG PIPE SEALS, MILFORD, NH OR EQUIVALENT APPROVED BY ENGINEER



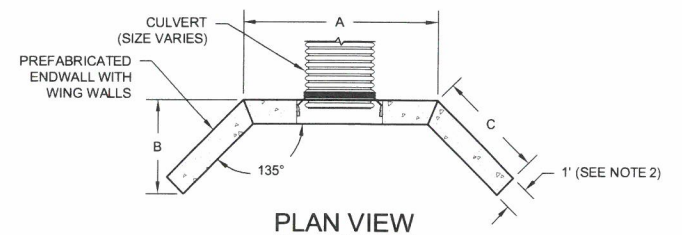
PLAN VIEW



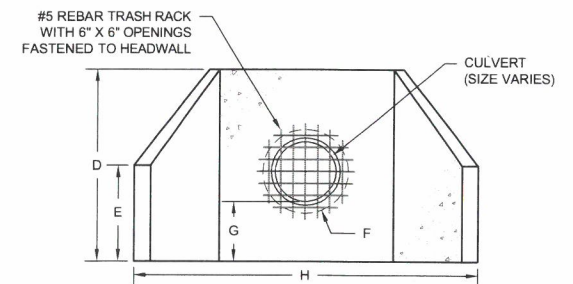
ELEVATION VIEW

DRAIN MANHOLE

5
NOT TO SCALE



PLAN VIEW



ELEVATION VIEW

HEADWALL DIMENSION SCHEDULE								
CULVERT DIAMETER	A	B	C	D	E	F	G	H
30"	8'	3'-11"	4'-6"	8'	4'	42"	30"	14'-4"
48"	8'	4'-9"	5'-8"	9'	5'	63"	31 1/2"	16'

HEADWALL

6
NOT TO SCALE

FOR MORE INFORMATION ABOUT THESE PLANS, CONTACT THE CITY OF ROCHESTER PLANNING DEPARTMENT, 33 WAKEFIELD STREET, ROCHESTER, NH 03867 (603) 335-1338.

ROCHESTER PLANNING BOARD
APPROVAL CERTIFIED BY:

DATE:

SANBORN HEAD

SCALE: AS NOTED



NO DATE DESCRIPTION BY

DRAWN BY: A. MATTHEWS
DESIGNED BY: A. MATTHEWS
REVIEWED BY: T. REED
PROJECT MGR: T. REED
PIC: E. STEINHAUSER
DATE: NOVEMBER 2018

LFG SUPPLEMENTAL TREATMENT SYSTEMS
SITE PLAN APPLICATION DRAWINGS
WASTE MANAGEMENT OF NEW HAMPSHIRE, INC
ROCHESTER, NEW HAMPSHIRE

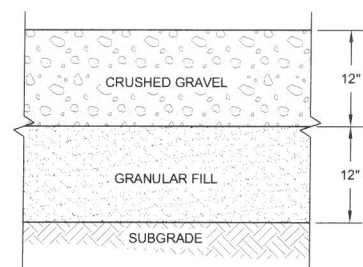
SITE AND ROADWAY DETAILS

PROJECT NUMBER:

4413.00

SHEET NUMBER:

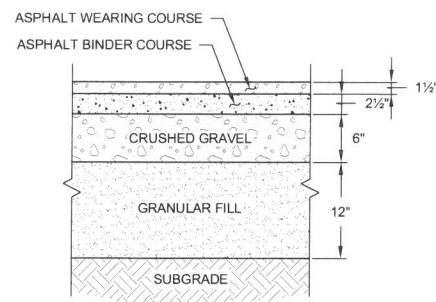
11 OF 13



GRAVEL SECTION

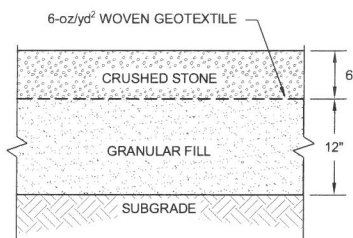
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NOT TO SCALE



PAVEMENT SECTION

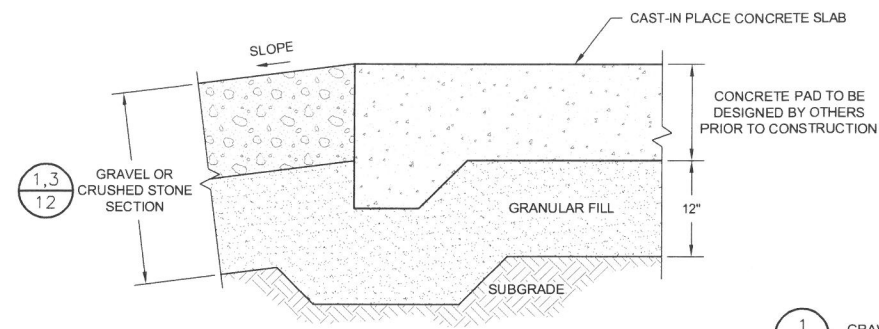
2 NOT TO SCALE



CRUSHED STONE SECTION

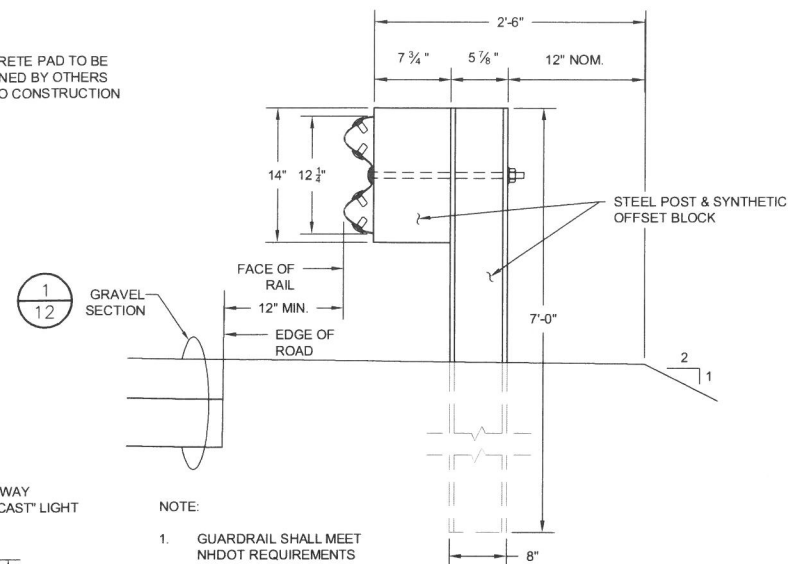
3

NOT TO SCALE



CONCRETE PAD

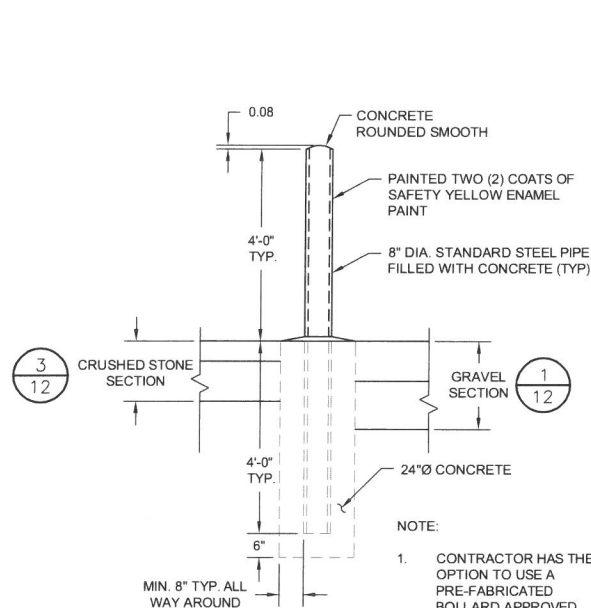
4 NOT TO SCALE



GUARDRAIL

5

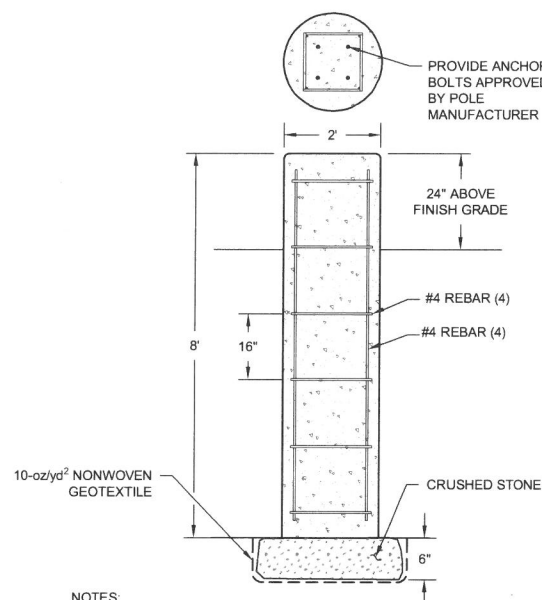
NOT TO SCALE



BOLLARD

6

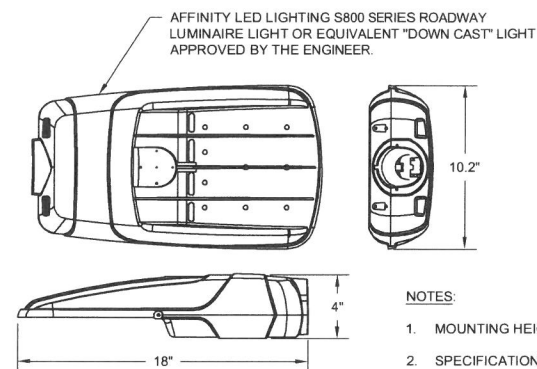
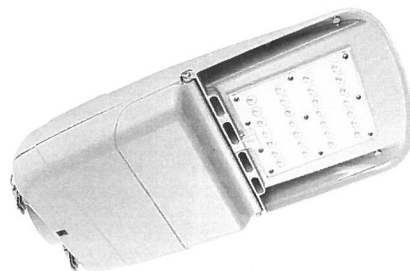
NOT TO SCALE



LIGHT POLE BASE

7 ————— NOT TO SCALE

- NOTES:**
1. PROVIDE 3" CONCRETE COVER OVER REINFORCING STEEL.
 2. CONCRETE SHALL BE MIN. 3500 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
 3. ANCHOR BOLTS SHALL BE ATTACHED TO CONCRETE REINFORCEMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 4. TO BE DESIGNED BY NEW HAMPSHIRE LICENSED PROFESSIONAL ENGINEER.

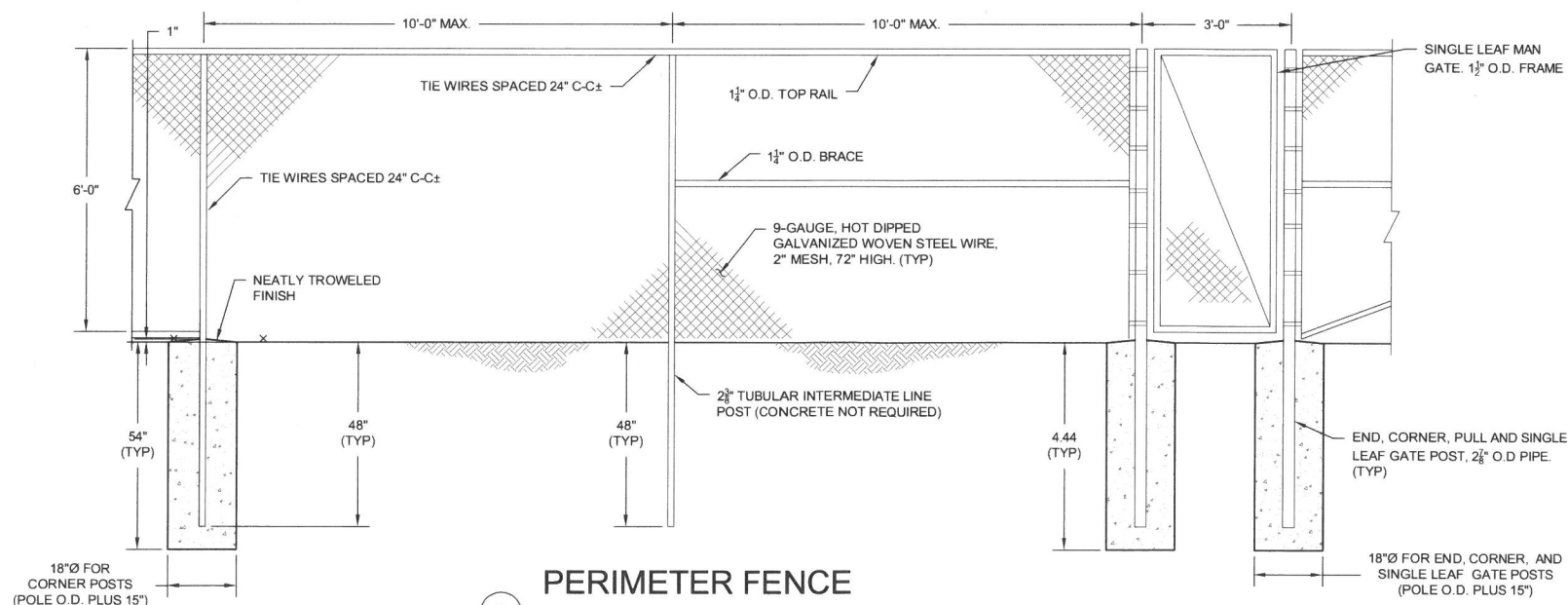


TRAFFIC AREA LIGHT

8

NOT TO SCALE

- NOTES:**
1. MOUNTING HEIGHT = 15 FEET.
 2. SPECIFICATION SHEETS AVAILABLE FOR THIS PRODUCT AT WWW.AFFINITYLEDLIGHT.COM



PERIMETER FENCE

9 NOT TO SCALE

- NOTES:
1. THE CONTRACTOR SHALL SALVAGE AND REUSE EXISTING DRIVEN POSTS, FABRICATED RAILS AND PROVIDE NEW FENCING MATERIAL AS REQUIRED TO CONSTRUCT FENCING AS SHOWN ON THE DRAWINGS.
 2. ALL CORNER AND INTERMEDIATE BRACES OR PULL POSTS SHALL HAVE TWO BRACES.
 3. GATES TO BE INSTALLED AS PER MANUFACTURER'S INSTRUCTIONS.
 4. CORNER POSTS AND GATE POSTS SHALL BE SET IN CONCRETE AS SHOWN.

FOR MORE INFORMATION ABOUT THESE PLANS, CONTACT THE CITY OF ROCHESTER PLANNING DEPARTMENT, 33 WAKEFIELD STREET, ROCHESTER, NH 03867 (603) 335-1338.

ROCHESTER PLANNING BOARD
APPROVAL CERTIFIED BY:

DATE:

SCALE: AS NOTED

[illegible]

DRAWN BY: A. MATTHEWS
DESIGNED BY: A. MATTHEWS
REVIEWED BY: T. REED
PROJECT MGR: T. REED
PIC: E. STEINHAUSER
DATE: NOVEMBER 2018

LFG SUPPLEMENTAL TREATMENT SYSTEMS
SITE PLAN APPLICATION DRAWINGS
WASTE MANAGEMENT OF NEW HAMPSHIRE, INC
ROCHESTER, NEW HAMPSHIRE

PROJECT NUMBER:
4413.00

SITE AND ROADWAY DETAILS

SHEET NUMBER:
12 OF 13

GENERAL NOTES:

- CONDUCT EARTHWORK ACTIVITIES SO THAT THE SMALLEST PRACTICAL AREA IS EXPOSED AT ANY ONE TIME PRIOR TO FINAL GRADING AND STABILIZING WITH SEED AND MULCH. UNSTABILIZED AREA NOT WITHIN THE LANDFILL FOOTPRINT SHALL BE LIMITED TO NOT MORE THAN 2 CONTIGUOUS ACRES AT ANY ONE TIME. THE TERM "STABLE" IS DEFINED AS MEETING ONE OF THE FOLLOWING CRITERIA:
 - BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
 - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 - A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE RIPRAP HAS BEEN INSTALLED; OR
 - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- APPLY SEED, LIME, FERTILIZER, AND HAY MULCH TO DISTURBED AREAS, NEWLY-PLACED FILL SLOPES, AND GRASS-LINED SWALES WITHIN 7 DAYS OF ACHIEVING FINAL GRADE. ALSO APPLY SEED AND HAY MULCH TO THOSE AREAS OUTSIDE OF THE LANDFILL FOOTPRINT WHICH WILL NOT BE RE-DISTURBED FOR A PERIOD OF 30 DAYS OR MORE. HAY MULCH SHALL BE APPLIED AT THE RATE OF 1.5 TO 2 TONS PER ACRE.
- EROSION CONTROL STRUCTURES SHALL BE INSTALLED PRIOR TO EARTH MOVING OPERATIONS AND AT THE DISCRETION OF THE ENGINEER AND OWNER. FILTER LOGS SHALL BE INSTALLED ALONG THE CONTOUR AND TOED UPSLOPE AND ARE TO BE MAINTAINED AND CLEANED UNTIL VEGETATIVE COVER IS ESTABLISHED.
- ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY DURING THE LIFE OF THE PROJECT AND AFTER EACH STORM EVENT WHICH PRODUCES 0.25 INCHES OF RAINFALL. ALL DAMAGED EROSION CONTROL BARRIERS SHALL BE REPAIRED PROMPTLY.
- TRACK UP AND DOWN REGRADED SLOPES (GROUSER TRACKS PERPENDICULAR TO THE SLOPE) WITH A BULLDOZER TO LIMIT EROSION.
- REMOVE SEDIMENT RESULTING FROM CONSTRUCTION ACTIVITY AS NEEDED FROM DETENTION PONDS TO MAINTAIN STORAGE CAPACITY AND AT THE DIRECTION OF THE ENGINEER OF OWNER. DISPOSE SEDIMENT IN A SECURE LOCATION SO AS TO PREVENT SILTATION OF NATURAL WATERWAYS.
- REMOVE SEDIMENT BUILD UP FROM BEHIND EROSION AND SEDIMENT CONTROL DEVICES. MAINTAIN TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES UNTIL FULL ESTABLISHMENT OF PERMANENT GROUND COVER.
- DITCHES, SWALES, AND PONDS SHALL BE INSTALLED EARLY ON IN THE CONSTRUCTION SEQUENCE (BEFORE ROUGH GRADING OF THE SITE) AND STABILIZED BEFORE RUNOFF IS DIRECTED TO THEM.
- CONDUCT SOIL BORROW EXCAVATION ACTIVITIES IN SUCH A MANNER THAT ALL RUNOFF FROM THE EXCAVATION AREAS IS CONTAINED WITHIN THE EXCAVATION.
- THE PROJECT SHALL BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER Agr 3800 RELATIVE TO INVASIVE SPECIES.

SPECIFICATIONS:

- TOPSOIL SHALL BE FERTILE SOIL CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH, FREE FROM ROOTS, STICKS, PEAT, WEEDS, AND SOD. IT SHALL NOT CONTAIN MATERIAL HARMFUL TO PLANT GROWTH.
- FERTILIZER (10-10-10) SHALL BE LOW PHOSPHATE AND SLOW RELEASE NITROGEN AND APPLIED UNIFORMLY OVER THE DISTURBED AREA AT A RATE OF TWENTY (20) POUNDS PER 1,000 SQUARE FEET (APPROXIMATELY 875 POUNDS PER ACRE).
- GRASS SEED SHALL BE FROM THE SAME OR PREVIOUS YEAR'S CROP; EACH VARIETY OF SEED SHALL HAVE A PERCENTAGE OF GERMINATION NOT LESS THAN NINETY (90), A PERCENTAGE OF PURITY NOT LESS THAN EIGHTY-FIVE (85), AND SHALL HAVE NOT MORE THAN ONE PERCENT (1%) WEED CONTENT.
- MULCH SHALL CONSIST OF DRY HAY OR STRAW AND BE FREE OF NOXIOUS WEEDS OR MOLD.
- APPLICATION OF FERTILIZER, LIME, SEED, AND MULCH SHALL ONLY BE PERFORMED DURING THOSE PERIODS WITHIN THE SEASONS WHICH ARE NORMAL FOR SUCH WORK AS DETERMINED BY THE WEATHER AND LOCALLY ACCEPTED PRACTICE, AND AS APPROVED BY THE ENGINEER.
- ANY PART OF THE SEEDED AREA WHICH FAILS TO YIELD AN ACCEPTABLE STAND OF GRASS AS DETERMINED BY THE ENGINEER OR OWNER SHALL BE RETREATED WITH ADDITIONAL SEED, FERTILIZER, AND MULCH.

GENERAL SEED MIX		
MIXTURE	POUNDS PER ACRE	POUNDS PER 1,000 SQ. FT.
TALL FESCUE	20	0.45
CREeping RED FESCUE	20	0.45
BIRDSFOOT TREFOIL	8	0.20
TOTAL	48	1.10

NOTE: GENERAL SEED MIXTURE TO BE APPLIED TO AREAS OTHERWISE NOT SPECIFIED TO BE SEEDED WITH ANOTHER MIX.

WINTER NOTES:

- ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS;
- ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS; AND
- AFTER NOVEMBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3.

FOR MORE INFORMATION ABOUT THESE PLANS, CONTACT THE CITY OF ROCHESTER PLANNING DEPARTMENT, 33 WAKEFIELD STREET, ROCHESTER, NH 03867 (603) 335-1338.

ROCHESTER PLANNING BOARD
APPROVAL CERTIFIED BY:

DATE:

SANBORN



SCALE: AS NOTED



NO.	DATE	DESCRIPTION	BY

DRAWN BY: A. MATTHEWS
DESIGNED BY: A. MATTHEWS
REVIEWED BY: T. REED
PROJECT MGR: T. REED
PIC: E. STEINHAUSER
DATE: NOVEMBER 2018

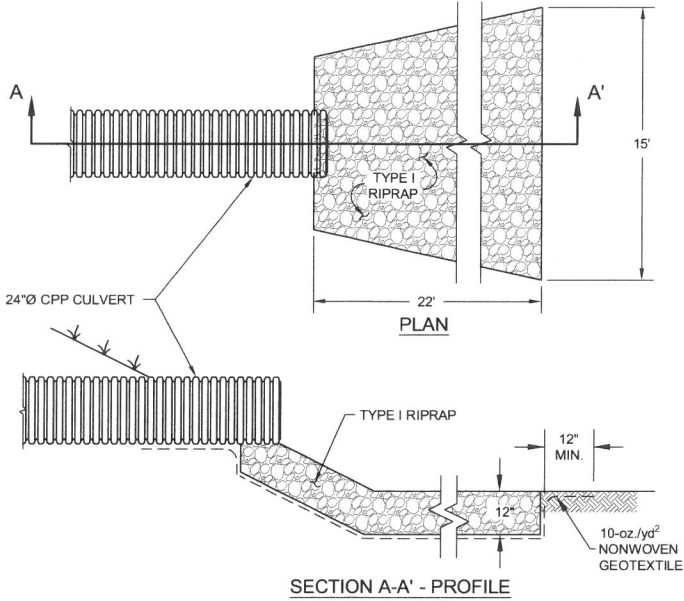
LFG SUPPLEMENTAL TREATMENT SYSTEMS
SITE PLAN APPLICATION DRAWINGS
WASTE MANAGEMENT OF NEW HAMPSHIRE, INC
ROCHESTER, NEW HAMPSHIRE

EROSION AND SEDIMENT
CONTROL DETAILS

PROJECT NUMBER:
4413.00
SHEET NUMBER:
13 OF 13

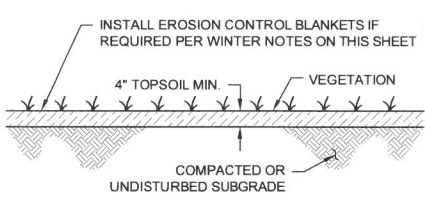
TEMPORARY EROSION CONTROL MEASURES:

- THE SMALLEST PRACTICAL AREA OF LAND SHALL BE EXPOSED AT ANY ONE TIME.
- EROSION CONTROL STRUCTURES SHALL BE INSTALLED ALONG THE EXISTING CONTOUR IN LOCATIONS SHOWN ON THE PLANS AND ARE TO BE MAINTAINED AND CLEANED UNTIL ALL SLOPES HAVE BEEN ADEQUATELY STABILIZED.
- ALL DISTURBED AREAS SHALL BE FINE GRADED BEFORE BEING SEEDED AND MULCHED.
- FILL MATERIAL SHALL BE FREE FROM STUMPS, WOOD, ROOTS, ETC.
- AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, THE TEMPORARY EROSION CONTROL STRUCTURES ARE TO BE REMOVED AND ACCUMULATED SEDIMENT DISPOSED OF IN A SECURE LOCATION.
- EROSION CONTROL STRUCTURES SHALL BE PERIODICALLY INSPECTED DURING THE LIFE OF THE PROJECT AND AFTER EACH STORM. SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED.



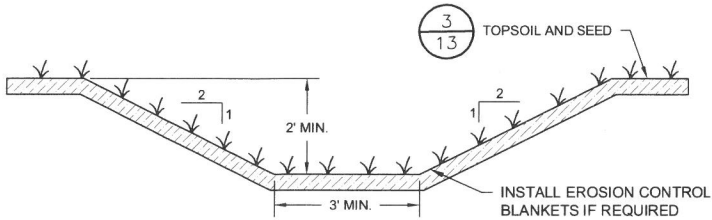
RIPRAP APRON

NOT TO SCALE



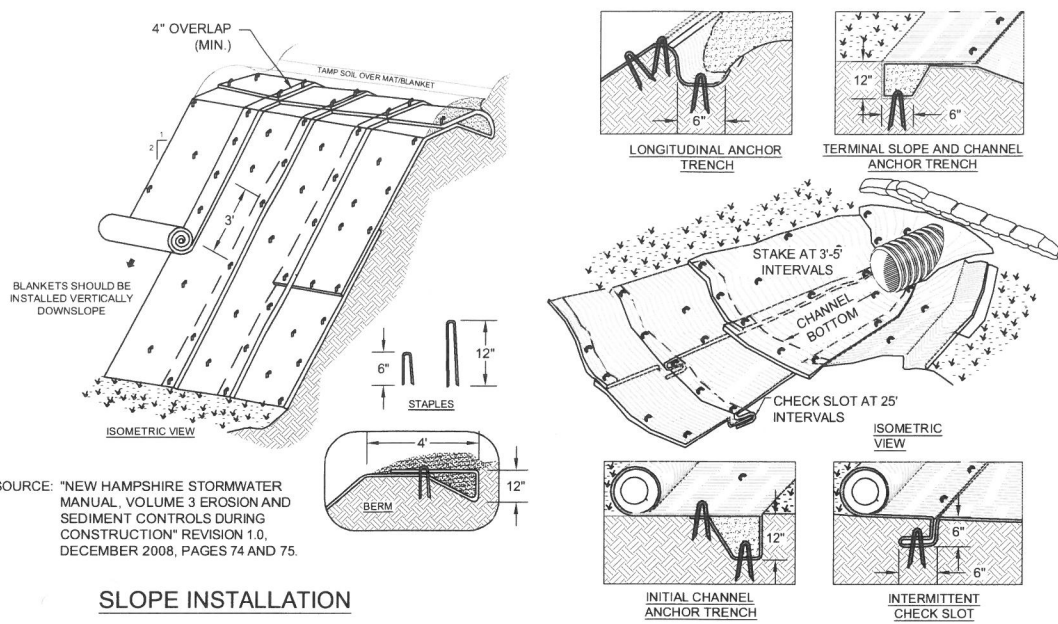
TOPSOIL AND SEED

NOT TO SCALE



POND 7 EMERGENCY OVERFLOW SWALE

NOT TO SCALE



SLOPE INSTALLATION

SLOPE INSTALLATION NOTES:

- DIMENSIONS GIVEN IN THE DRAWINGS ARE EXAMPLES; MATERIAL SHOULD BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
- SLOPE SURFACE SHALL BE FREE OF ROCKS, CLOUDS, STICKS AND GRASS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
- APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
- LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.

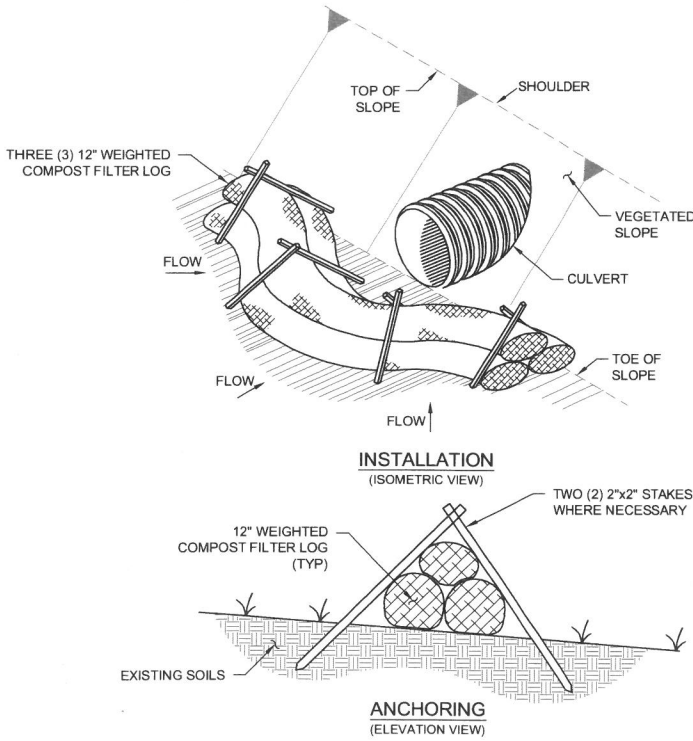
CHANNEL INSTALLATION

CHANNEL INSTALLATION NOTES:

- DIMENSIONS GIVEN IN THE DRAWINGS ARE EXAMPLES; MATERIAL SHOULD BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
- CHECK SLOTS TO BE CONSTRUCTED PER MANUFACTURER'S SPECIFICATIONS.
- STAKING OR STAPLING LAYOUT PER MANUFACTURER'S SPECIFICATIONS.

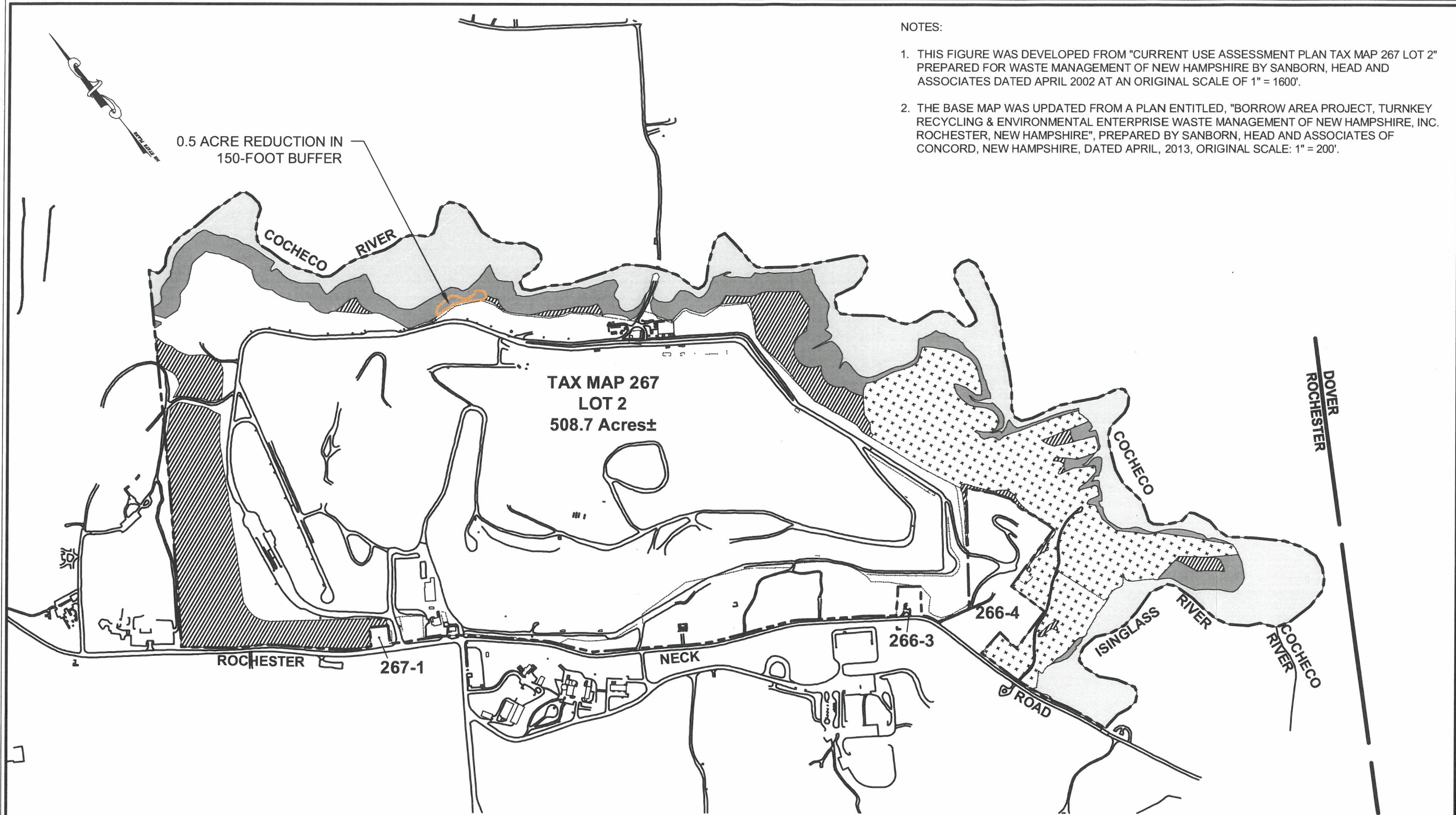
EROSION CONTROL BLANKET INSTALLATION

NOT TO SCALE



TEMPORARY FILTER LOG INLET PROTECTION

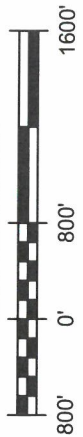
NOT TO SCALE



NOTES:

1. THIS FIGURE WAS DEVELOPED FROM "CURRENT USE ASSESSMENT PLAN TAX MAP 267 LOT 2" PREPARED FOR WASTE MANAGEMENT OF NEW HAMPSHIRE BY SANBORN, HEAD AND ASSOCIATES DATED APRIL 2002 AT AN ORIGINAL SCALE OF 1" = 1600'.
2. THE BASE MAP WAS UPDATED FROM A PLAN ENTITLED, "BORROW AREA PROJECT, TURNKEY RECYCLING & ENVIRONMENTAL ENTERPRISE WASTE MANAGEMENT OF NEW HAMPSHIRE, INC. ROCHESTER, NEW HAMPSHIRE", PREPARED BY SANBORN, HEAD AND ASSOCIATES OF CONCORD, NEW HAMPSHIRE, DATED APRIL, 2013, ORIGINAL SCALE: 1" = 200'.

GRAPHICAL SCALE



SANBORN HEAD

DRAWN BY: OHP
DESIGNED BY: OHP
CHECKED BY: APM
REVIEWED BY: TWR
PROJECT MGR: TWR
PIC: ESS
DATE: NOV 2018

WASTE MANAGEMENT OF NEW HAMPSHIRE, INC.
TURNKEY RECYCLING AND ENVIRONMENTAL
ENTERPRISE FACILITY
ROCHESTER, NEW HAMPSHIRE

CURRENT USE ASSESSMENT PLAN
TAX MAP 267 LOT 2

PROJECT NUMBER:
4413.00
FIGURE NUMBER:
267-2

LEGEND:

	UNPRODUCTIVE
	150-FOOT BUFFER
	FARM LAND
	FOREST LAND

LAND USE SUMMARY

NOT IN CURRENT USE: ~~344.4~~ 311.6 ACRES±

CURRENT USE: ~~497.6~~ 197.1 ACRES±

UNPRODUCTIVE (INCLUDING BUFFER) = ~~405.8~~ 105.3 ACRES±

FARM LAND = 51.4 ACRES±

FOREST (HARDWOOD) = 32.8 ACRES±

FOREST (WHITE PINE) = 7.6 ACRES±

NO.	DATE	DESCRIPTION	BY
1	11/05/18	ADJUSTED AREAS FOR LFG SUPPLEMENTAL TREATMENT SYST	OHP
2	06/10/13	ADJUSTED AREAS FOR BORROW AREAS 6E & 6W	DMR
3	01/04/06	ADJUSTED AREAS FOR NORTH FLARE STATION	DJD